

A stylized illustration of a Boy Scout in profile, facing left. He wears a brown wide-brimmed hat and a red neckerchief. The background is a deep blue with dark, silhouetted trees and a building with a gabled roof in the upper right. The overall style is graphic and reminiscent of mid-20th-century book covers.

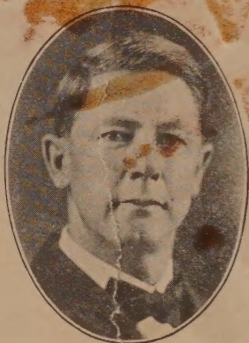
HANDBOOK FOR BOYS

NORMAN
ROCKWELL

BOY SCOUTS OF AMERICA

THE OFFICIAL

THIS BOOK is furnished you
through the courtesy of



MAHLON N. HAINES

Better known as

HAINES THE SHOE WIZARD

York Hanover Gettysburg

THE Official Boy Scout Uniform is a sign to the world that a fellow wearing it is a member of the largest uniformed body on the face of the earth,—The Boy Scouts of America.

The real Scout is proud of his Uniform and will wear it whenever he appears in public as a Scout.

MANUFACTURED AND DISTRIBUTED BY

SIGMUND EISNER CO., RED BANK, N. J.
NATIONAL OUTFITTERS TO THE BOY SCOUTS OF AMERICA

Revised Handbook for Boys

FIRST EDITION

*Fifteenth Printing, One Hundred Thousand Copies.
See following page for record of previous editions.*

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BOY SCOUTS OF AMERICA

Incorporated February 8, 1910, under the laws of the District of Columbia. Chartered by Congress, June 15, 1916.

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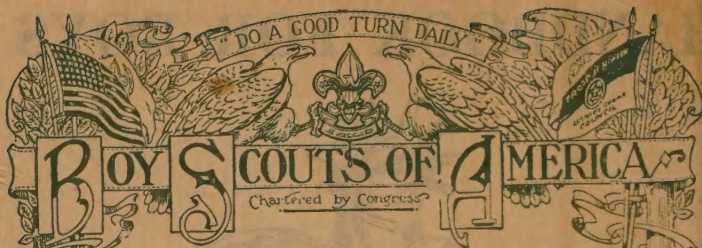
HANDBOOK FOR BOYS



Published by
THE BOY SCOUTS OF AMERICA

*Incorporated February 8, 1910, under the laws of the District of
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PARK AVENUE BUILDING
2 Park Avenue
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My Scout History

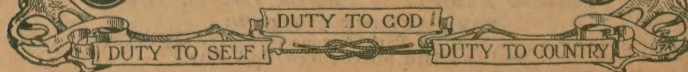
Qualified as	Troop No.	City
Tenderfoot Scout.....19		
Second Class Scout...19		
First Class Scout.....19;		
Star Scout19		
Life Scout19		
Eagle Scout19		
Veteran Scout19		

Was Assistant Patrol Leader.....
 Patrol Leader.....
 Senior Patrol Leader.....

 Junior Assistant Scoutmaster.....
 Assistant Scoutmaster.....

 Became Scoutmaster.....

Name





To You Boys of
America



We dedicate this
HANDBOOK
FOR BOYS

In it you will find something of the ancient lore of woodcraft in God's out-of-doors;

In it are Scout Oath and Law, and Good Turn, the finest traditions of our civilization;

In it you will meet those lifelong friends—trees and birds and flowers and animals and stars;

In it are age-old secrets of First Aid, that saver of human life;

In it are games and books, camping, healthcraft and handicraft—fun and leadership; **KNOWING** and **DOING**, and **BEING**;

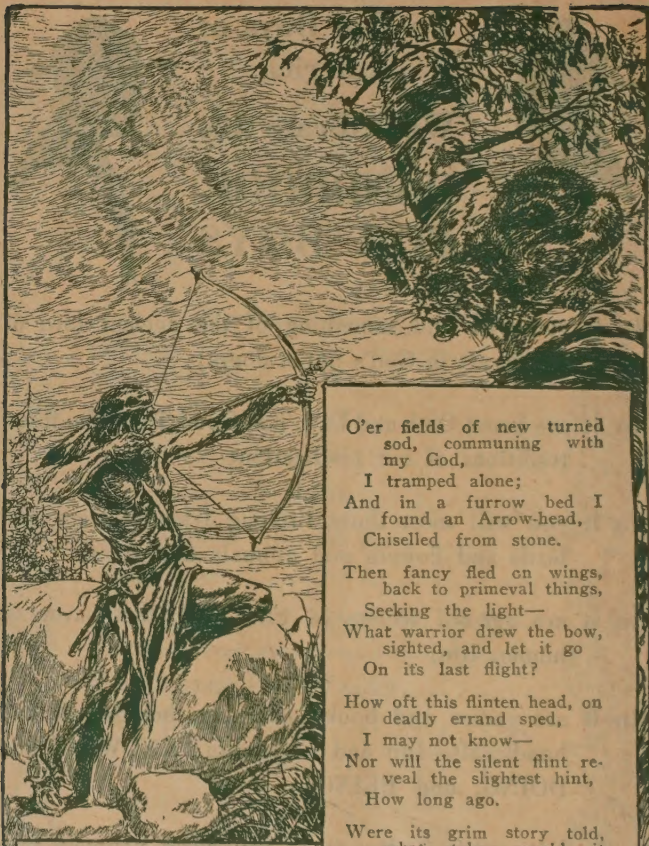
—Read it, enjoy it, live it as you build yourself into full **CITIZENSHIP**—be square—hit the line hard—**“Be Prepared.”**

Boy Scouts of America,

Editorial
Board

{ Wm. D. Murray
Bruce Barton
John H. Finley
Frank Presbrey
Henry Van Dyke

This Handbook is for all Scouts, whether in country or city, Lone Scouts, or in Troops. A separate Manual is available for Sea Scouts.



A Flint Arrow-head



O'er fields of new turned
sod, communing with
my God,

I tramped alone;
And in a furrow bed I
found an Arrow-head,
Chiselled from stone.

Then fancy fled on wings,
back to primeval things,
Seeking the light—
What warrior drew the bow,
sighted, and let it go
On its last flight?

How oft this flinten head, on
deadly errand sped,
I may not know—
Nor will the silent flint re-
veal the slightest hint,
How long ago.

Were its grim story told,
what tales would it
unfold,

Tales that would chill—
I know but this one thing,
beyond all questioning,
'Twas made to kill.

Ages have worn away, war-
riors gone their way;
Their bones are dust—
Proof of a craftsman's skill
survives the ages still—
Left in my trust.

Enos B. Comstock (in *Boys' Life*)

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THE HAIRY MAMMOTH (*From Stone Age Cave Wall in France*)
(*One of the earliest known drawings*)

Foreword

BOYS!

The cave-boy who peered out from behind the fire that kept the sabre-tooth tiger away, led a rather narrow life—but in his heart were noble longings—he would grow and some day take his stone spear or arrow and bring in food, like his father.

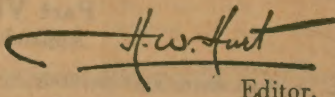
The Egyptian boy, who loved to watch the chariots roll—the Grecian boy, fleet of foot in the games—the Roman boy who saw Cæsar's captives and the great sports in the amphitheatres—the Viking boy awaiting his first voyage—the English boy who was squire to a knight—the Pioneer boy helping tame the wilderness—every one DREAMED and WORKED to "Be Prepared" when he became a MAN.

To you boys of America, we bring this Scout book of gleanings of the things those boys have discovered across the centuries. Life's as big as we make it.

Scouting is a happy trail, with "Good Turns" around which are big things.

May this volume help you discover yourself, and God, and Good—then may you help some one else discover.

Faithfully,


Editor.

Part I

WHAT IS SCOUTING?

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CHAPTER I



WHAT IS A Boy Scout



SCOUT! What fun
he finds in hiking
into the woods! He
tells North from South
by the moss on the trees,
or East from West by the shadows.

He can talk to a brother Scout across
a river by signaling. He knows the principal trees and birds and animals that he meets, he knows which are poisonous weeds or reptiles, he can find his way by the stars as did the Indians and pioneers before him.

If matches are forgotten, he laughs and proceeds to kindle fire by rubbing sticks together or by striking steel on flint. The fire once started, what good things he can cook out

there in the open! He keeps himself physically fit, he avoids poisons of alcohol or tobacco; he guards his tongue from loose speech or boasting or sacrilege. When he speaks of anyone, he tries to speak well of him.





His Scout "Good Turns" to some-one each day make him many friends—for the way to *have* friends is to first **BE** one. His motto is "Be Prepared" and he thinks through in advance what he would do in fire or storm. When someone is injured he is "ready" to help him with his First Aid knowledge.

He always tries to be a useful citizen. He helps his community.

Another big thing a Scout enjoys is camping—there he finds fun in game or swim—finds new friends

in woods and other fellows—and there among the trees, or under God's silent stars, or by the camp-fire's ruddy embers, he dreams out his great **TOMORROW**.



ANDY JANSON



CHAPTER II

A Dad's Eye View of Scouting



Tell your father that Scouting is a program of interesting, useful things for boys TO DO in their leisure time. These boys learn the mysteries of Woodcraft, of First Aid, Swimming and Life Saving, of Outdoor Cooking and Camping, of Signaling, Map Making, Hiking and Citizenship.

Like the Red Cross, SCOUTING is chartered directly by Congress and the President of the United States is its "Honorary President."

The Scoutmasters are picked local men, who give their time without pay because of their interest in the boys of America.

SCOUTING gives boys a chance to serve their community. Its activities not only give pleasure and knowledge, but they prepare to meet community emergencies. When tornado struck Omaha or Southern Illinois—when flood swept on Pueblo—when earthquake and fire hit California—when powder magazines exploded in New Jersey—the Scouts proved at once their readiness to SERVE.



SCOUTING is neither military nor anti-military. It carefully avoids political or commercial entanglements.

Scouting knows no race or creed or class. Troops are found alike in Catholic Parish, Jewish Synagogue and Protestant Church. It is available to farm or city alike. It is found in schools—it serves the rich as it serves the poor. Its aim is to help each of these boys to become the best citizen that he can make of himself.



His "Daily Good Turn" to some one is the Scout's effort to help the other fellow to also make the best of himself.

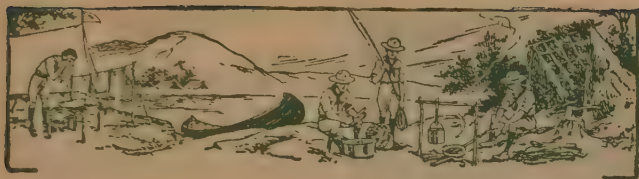
Each year new thousands upon thousands of boys join SCOUTING. They find not only fun, but also a real chance to BE something more. Every boy really wants to "Make Good"—to amount to something—to be of value in life. The ideals of our great Americans like Washington and Lincoln and Roosevelt and Wilson (and others) stir us all to ambition and the desire to be REAL MEN.

Of course your father knows that every man faces three big problems:

1. Mastery of his own powers, getting them keen and ready for use.
2. Getting along with other people.
3. Finding a worthy use for these powers.

The tremendous sweep of Scouting has come because it helps a boy with these problems—helps him find himself and his powers—helps him "BE PREPARED."





Your father knows that leisure time, the nothing-to-do time, can **make** or **break** any fellow. Some boys have checked up on their own time and were surprised to find that they had six or eight hours of leisure time daily.

Scouting provides attractive things to DO, in this spare time—things, too, that “get one somewhere.”

SCOUTING helps the Scout to value the great heritage which the past has brought to him in the life and ideals of America, and SCOUTING points the way of good citizenship through service. Not “Getting” but “Giving”—not only “Receiving” but “Giving back” something that shall, as Lincoln phrased it—“Make the world better because of our little life in it.”

Our America is the “melting pot” of the world. Her strength has come from every people. Good will must be extended to these new citizens, indeed only as “the spirit of Brotherliness” is present, can Liberty develop.

As the “Golden Rule” is extended to these other fellows—life in America gets on a sound footing.





Time

TIME is one of the great riddles of the ages. Every one in the world has the same amount of it—twenty-four hours each day.

We are all alike, too, in only having TODAY. YESTERDAY is gone, TOMORROW may never come—so that every living person has today, this hour, this minute at his disposal.

We do, however, differ greatly in the ways we USE this little measure of time; we differ in what we put into it and therefore of course in what we take out of it. Some idle away their chances, others use them to serve and to move onward and upward in life.

The Scout recognizes that lost time, like water that has passed beneath the bridge, is gone forever; he recognizes that with time he cannot (fox-like) “**back-track**”—he passes this way but once and then that day’s chance for “GOOD TURNS,” for cordiality, for cheerfulness, for self-improvement, for learning, for thrift—that day’s chance is GONE—it never returns.

So Scouts value time and USE it THRIFTILY and with PURPOSE!

“Dost thou value life? Then guard well thy time, for time’s the stuff life’s made of.”—B. FRANKLIN.

CHAPTER III

Joining the Boy Scouts of America

Wherever you go in the United States—whether in Maine or Texas, Washington or Florida—you find Scouts everywhere, in city, town or open country. Scout Troops dot every corner of the nation. Clean-cut, alert, spick-and-span in their uniforms and honored because of their service. As Theodore Roosevelt said:

“The Boy Scout Movement is distinctively an asset to our country for the development of efficiency, virility and good citizenship.”



EVERY DOT A SCOUT TOWN

In the first twenty-one years of SCOUTING (beginning 1910), over 4,277,833 boys became members.

In our colleges today, we find that nearly half the college men have been and are Scouts. In 1926, these Scouts were—in

Harvard	49%	Northwestern University.	42%
Yale	38%	Washington and Jefferson.	64%
Michigan	44%	U. S. Naval Academy ..	50%
Lafayette	50%	U. S. Military Academy..	48%

SCOUTING AROUND THE WORLD

Scouts are met in 73 civilized countries, which countries represent 91% of the world's population.



COUNTRIES IN BLACK HAVE SCOUTS

SCOUTING is a great world brotherhood of boys and men, and, as a President of the United States has stated, is one of the big forces today making for world peace.

NOW! HOW TO JOIN

To join the Boy Scouts of America, a boy (he must be at least 12 years of age) should go to the nearest Scout or Scout Official of whom he knows. This Scouter will doubtless be able to help him find a Troop to join.

Where there is no near-by Troop one may be organized by a church, or school, or club, or lodge, or union, or grange, or similar institution. If a boy is practically alone, he may register as a "Lone Scout," writing directly to the nearest Council or to the National Council, Boy Scouts of America, at 2 Park Avenue, New York City.

Every Scout in the country pays a membership fee of fifty cents a year, to the National Council, which is responsible for carrying on and extending Scouting to other boys. Each Scout Membership, therefore, also helps other boys enjoy the game of Scouting.

CHAPTER IV

The "Good Turn" and Knighthood

Early in the fifth century, there rode through the forest, in what is now a corner of London, a powerful Knight, clad in full shining armor, with lance and plumes and helmet. Like his master, the great war horse was also protected by armored trappings. At his side rode his Squire, a young knight in training, and behind came his picked patrol of men-at-arms—strong, brave, armed to the teeth. A gallant band, alert and ready.

The shrill scream of a woman in trouble startled the band. Instantly the Knight turned aside and spurring his charger into full gallop, was soon at the woman's side. One stroke of his



trusty sword disposed of her captor, while his men quickly overtook and handled the other bandits. Then the frightened woman was restored to her fireside—and the Knight traveled on.

Such was the spirit of these Knights of old. A "Good Turn" to some one was their daily practice.

• • • • •

1,500 years rolled by and over that selfsame one-time forest, the great city of London has grown.

All day long it had been in the hard grip of a dense, heavy fog. Traffic crept cautiously and slowly. Street lights had been ordered on by the police before noon,

and now night was coming on. Danger lurked on every hand, because "going" was difficult even for the native.

Wm. D. Boyce, Chicago publisher and traveler, was seeking a difficult address in old London. A boy approached him, and asked, "May I be of service to you?" Mr. Boyce told him where he wanted to go and the boy saluted and said, "Come with me, Sir," and forthwith led him to the desired spot. Like the typical American tourist, Mr. Boyce reached in his pocket and offered the boy a shilling. The boy promptly replied, "No, Sir, I am a Scout. Scouts do not accept tips for courtesies." The man in surprise murmured, "What do you say?" The Scout repeated and then added, "Don't you know about the Scouts?" Mr. Boyce said, "Tell me about them." The boy did and added, "Their office is very near, Sir. I'll be glad to show you the way."



Mr. Boyce had to complete his errand first. The lad waited, however, and then led him to the office of Lord Baden-Powell, founder of the British Boy Scout Association, where information about the Scout Movement was gladly given. Mr. Boyce was tremendously impressed and gathering all available information, brought it back to the United States.

On February 8 of the next year, Mr. Boyce and others interested in boys and citizenship, formally incorporated **THE BOY SCOUTS OF AMERICA**. This day is observed each year as the birthday of Scouting in the United States.

This "Good Turn" to a stranger brought SCOUTING to the United States (1909), and to millions of American boys.

On May 1, 1926, at Washington, D. C., the National Council of the Boy Scouts of America honored this Unknown English Scout with the award of the "Bronze Buffalo" a large statue in the form of a buffalo similar to the Silver Buffalo Award, for distinguished service to boyhood. On it is this simple but eloquent inscription:

"To the Unknown Scout Whose Faithfulness in the Performance of the 'Daily Good Turn' Brought the Scout Movement to The United States of America."



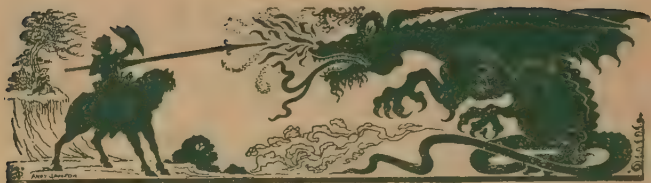
The statue is set up in Gillwell Park, England and was received by the Prince of Wales on behalf of the British Boy Scouts.

This "Good Turn" is in no way unlike millions of "Good Turns" done daily by the Boy Scouts of the United States and the world

* * * * *

Any one of keen mind can quickly see that this Scout "Good Turn" carries on the Knightly ideal. It is the sacred heritage direct from the days of chivalry "When Knighthood was in Flower." Their motto was "BE ALWAYS READY." A Reading of their Knightly code, simple but majestic, reveals at once the kinship of Ancient Knight and Modern Scout.





THE KNIGHT'S CODE

"BE ALWAYS READY, with your armour on, except when you are taking your rest at night.

DEFEND the poor, and help them that cannot defend themselves.

DO NOTHING to hurt or offend any one else.

BE PREPARED to fight in the defense of your country.

AT WHATEVER you are working, try and win honor and a name for honesty.

NEVER break your promise.

MAINTAIN the **HONOR** of your country with your life. Rather die honest than live shamelessly.

CHIVALRY REQUIRETH that youth should be trained to perform the most laborious and humble offices with cheerfulness and grace; and **TO DO GOOD UNTO OTHERS."**

(From *Scouting for Boys*—Baden Powell)

'Twas men of such timber and vows that King Arthur gathered about his famed "Round Table" and history and song are full of their deeds; not alone for their valor as fighters, but more for their honor as men, their chivalry to women and their championing of right and of the weak. Such, then is the history of the beginnings of the Scout "GOOD TURN."

HUMAN RIGHTS AND KNIGHTS

In these early days, when poor people were wronged, the Knights were almost the only help. This protection to tradesmen and farmers made possible the beginnings of villages and towns outside of castle walls.

'Twas these same Knights (The Barons) who in 1215 made King John of England sign the **MAGNA CHARTA**—the first great milestone to **FREEDOM**.

This document fixed in writing a recognition of the rights of common people, so that Kings could no longer override them at will.

THE NINE POINTS OF THE MAGNA CHARTA

1. "NO MAN SHALL BE TAKEN OR IMPRISONED."
2. "NO MAN SHALL BE DISSEIZED OR DISPOSSESSED."
3. "NO MAN SHALL BE OUTLAWED" from the privileges of the law."
4. "NO MAN SHALL BE BANISHED."
5. "NO MEN SHALL IN ANY SORT BE DESTROYED."
6. "NO MAN SHALL BE CONDEMNED BUT BY THE JUDGMENT OF HIS PEERS." (Our trial by jury.)
7. "We shall SELL to no man justice or right."
8. "We shall DENY to no man justice or right."
9. "We shall DEFER to no man justice or right."

(From Wm. Penn's publication of 1687)

In other words, Government began to guarantee some human rights.

THE PIONEER KNIGHTS

The spirit of LIBERTY grew more and more—religious oppression making it stronger until little bands began to brave uncharted seas and move to new America.

They brought with them knightly ideals. In the old Mayflower was signed the first compact in which men voluntarily agreed as to how they should be governed.

MAYFLOWER COMPACT

"In ye name of God, Amen, WE, whose names are underwritten, the loyall subjects of our dread soveraigne Lord, King James, by ye grace of God, of Great Britaine, France & Ireland King, defender of ye faith, etc., having undertaken for ye glorie of God, and advancemente of ye Christian faith, and honour of our King and countrie, a voyage to plant ye first colonie in ye northerne parts of Virginia, doe by these presents, solemnly and mutually in the presence of God and of one another, covenant and combine ourselves together into a civill body politick for





our better ordering and preservation and furtherance of ye ends aforesaid; and by virtue hearof to enacte, constitute, and frame such just and equall lawes, ordinances, acts, constitution and offices, from time to time, as shall be thought most meate and convenient for ye general good of ye colonie, unto which we promise all due submission and obedience."

"And after they had provided a place for their goods . . . and begunne some small cottages, as time would admitte, they mette and consulted of lawes and orders."

Bradford—History of the Plymouth Plantation

These pioneers were religious and law-abiding, peaceable and industrious. They laid the foundation of our nation.

It was such men who penned the immortal DECLARATION OF INDEPENDENCE, as a "Good Turn" to the world:

"We hold these truths to be self evident: that all men are created equal; that they are endowed by their Creator with certain inalienable rights; that among these are life, liberty, and the pursuit of happiness."

This great document then recited the acts which prompted it and closed with these ringing words:

"And for the support of this declaration with a firm reliance on the protection of Divine Providence, we mutually pledge to each other OUR LIVES, OUR FORTUNES, AND OUR SACRED HONOR."



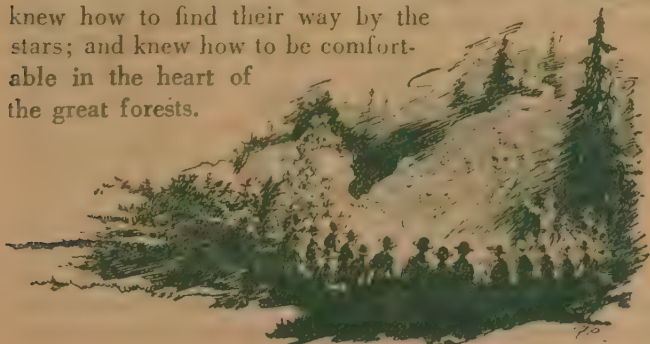
These sturdy souls were pioneer Knights, defending the weak and oppressed, and establishing the American right to worship God according to conscience. Women and





children were protected from wild animals and enemies and outlaws. The Buckskin Pioneers who pushed westward to conquer a continent, to harness its great resources, and to make available to us its beauties—they were Knights indeed. They were men of strong, stalwart, athletic build—clean, open countenance, high moral character and usually of strong religious convictions. They hated dishonesty, were generally kindly and generous and brave, polite to women and to old people, ready to rescue a companion in danger and equally ready to risk their lives for a stranger.

They also knew the things that Scouts everywhere need to know **TO TAKE CARE OF THEMSELVES** and others. They knew the woods, and fields and marshes; knew where the best fish might be caught; knew the haunts and tracks of animals; knew the trees and the trail signs; knew how to find their way by the stars; and knew how to be comfortable in the heart of the great forests.



Respect to Womanhood

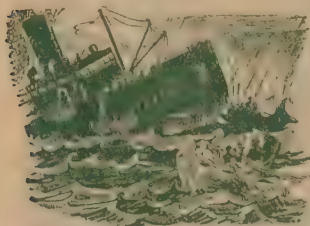


The girl who, fifteen centuries ago, ran into King Arthur's hall crying for help is little different in situation from a little girl fleeing from some ill bred bully as she goes home from school in America. The Knight donned his armor and galloped to the robbers' cave and fought them to defeat singlehanded. The Knight of today can still protect the weak and the needy every day.

Good manners are as vital in business as they are in SOCIAL LIFE. In meeting a woman, or a child, a man should as a matter of course always make way for her.

When walking with a lady or a child, a Scout should always walk on the side nearest traffic, so as to protect.

When riding in a crowded street car or bus, men worthy of the name will offer their seats to woman or child. As a Scout, set the example with a smile.



In times of accident and danger, the strong men stand back to give the women and children protection; such on ships, too, is the chivalry of the sea. Courtesy to women should be shown at all times. If

you are seated and a lady enters the room, stand up and see if you can help her in any way before you sit down.

THE REAL TEST

The final test of a good Scout is in his doing of "Daily Good Turns," quietly and without boasting. All the uniforms ever made, decorated with all the badges, do not make the wearer a Scout.

A "Good Turn" is an **extra** kindness and service—something **more** than what courtesy and good manners would do. To answer a traveler's inquiry is not a "Good Turn." it is natural courtesy. but to actually GO to conduct him. that would be extending to him more courtesy than he had asked.

SOME MODERN "GOOD TURNS"

- | | |
|--------------------------------------|--|
| Put out forest fire. | Kept a cat from killing a chicken. |
| Took live wire to curb. | Dug post holes for man next door. |
| Let a dog out of a trap. | Drove a car to a funeral for a lady. |
| Carried mail to a prisoner. | Cleaned off cemetery lot for funeral. |
| Wheeled a crippled man. | Put water in chicken coop at store. |
| Cooked for a sick person. | Helped an old lady with her bundles. |
| Gave water to crippled dog. | Rendered first aid to a burned child. |
| Fixed a little boy's tricycle. | Took in some beds for an old woman. |
| Helped boy look for his dog. | Helped a paralyzed man fix his papers. |
| Stopped fight in school yard. | Helped get a horse up that had fallen. |
| Helped put out a burning field. | Carried a crippled boy's book for him. |
| Moved a sewer pipe out of road. | Took a small child across three streets. |
| Helped the cook pick a chicken. | |
| Cranked car for one-armed man. | |
| Distributed cards for Bible class. | |
| Helped grocer recover spilled fruit. | |
| Got a ball out of a tree for a boy. | |



Found and restored lady's pocketbook.
 Picked up nails and glass out of street.
 Cut wood for another boy who was sick.
 Put out fire in a lady's house.
 Found a lost child and found its mother.
 Boy was sick, pulled him home on wheel.
 Helped a lady across street with bundles.
 Polished an old woman's stove for her.
 Splinted and bandaged broken leg of dog.
 Found bird with broken leg; cared for it.
 Took chewing gum off the street-car seat.
 Caught a cow and drove it home for a lady.
 Freed a cow that was tangled in a wire fence.
 Went to town to get husband for sick woman.
 Helped crippled boy across the street.
 Carried a letter across the street for an old man.

Helped a man with auto trouble.
 Removed a slipknot from around cow's neck.
 Delivered church circulars for Methodist church.
 Made scrapbooks for the Home for the Friendless.
 Assisted a Russian boy with some English grammar.
 Climbed a tree at night to get a chicken for a lady.
 Pulled a splinter out of a dog's foot and treated it.
 Assisted aged lady across the street during rush hour.
 Put top back on manhole after same was open part of the night.
 Helped attend a cow that was cut in a wire fence.
 Called power company and reported to them a live wire.
 Attended to neighbor's baby while she went down town.
 Stopped some boys from hitting a little dog with stones.
 Removed overturned garbage can from street after dark.
 Helped a blind man off the street car and across the street.
 Repaired a broken place in the front porch for a neighbor.
 Bought stove wood for a poor family and gave it to them.
 Helped a man fix his fence where the cows had torn it down.
 Put light over a dangerous place so as to prevent accidents.

Part II

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To become a Scout a boy must be at least twelve years of age. Upon demonstrating to the satisfaction of the Scoutmaster his ability to repeat the Scout Oath and Law in full and his thorough knowledge of their meaning, and upon meeting the following requirements, the boy formally subscribes to the Oath and Law and is registered as a Tenderfoot Scout, and is then entitled to wear the Tenderfoot Badge and the Official Uniform of the Boy Scouts of America.

1—Know the Scout Oath and Law, Motto, Sign, Salute, and significance of the Badge.

2—Know the composition and history of The Flag of the United States of America and the customary forms of respect due to it.

3—Tie the Square Knot and any eight of the following knots: Sheet Bend, Bowline, Fisherman's, Sheepshank, Slip, Clove Hitch, Timber Hitch, Two Half Hitches, Carrick Bend, Miller's Knot, Rope Halters, Pipe Hitch, Stevedore, Barrel Hitch, Girth Hitch, Binder Twine Bend, Lariat Loop, Hitching Tie.



Boy Scouts of America

Office of The National Scout Commissioner.

My dear Fellow Scout:

As a Tenderfoot you are now to be loaned the use of the Scout name and uniform and badge. That makes you the representative of Scouting—it will be judged by what you do.

Guard its good name as you would your own honor.



Faithfully, *Daniel C. Beard*

National Scout Commissioner

My Tenderfoot Scout Score Board

Tenderfoot Requirements To become a Scout



Score Board

Name

FOR ME TO KNOW AND DO

- 1
 - a The Scout Oath -----
 - b The Scout Law -----
 - c The Scout Motto -----
 - d The Scout Sign & Hand Clasp -----
 - e The Scout Salute -----
 - f The Scout Badge -----

Test passed ----- Date ----- Signed -----
Scoutmaster

- 2
 - a The History of the Flag of the U.S.A. -----
 - b Give proper respects to the Flag of the U.S.A. -----

Test passed ----- Date ----- Signed -----
Scoutmaster

- 3 Tie the nine useful knots

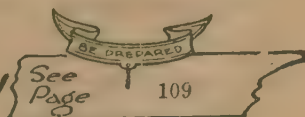
Test passed ----- Date ----- Signed -----
Scoutmaster

Tenderfoot Test Completed ----- Date -----

Signed by Scoutmaster -----

Next Step

Start for
"Second Class" at once!



CHAPTER I.

How to Become a Tenderfoot Scout



"To become a Scout a boy must be at least twelve years of age."

But no boy can be a Scout just because he happens to be old enough. There are also Things he must KNOW and BE.

Most important among these are The Scout Oath and The

Scout Law. First a Scout KNOWS them, then the Scout DOES them—that's the way people know he's a Scout—by what he DOES!

Requirement No. 1 (a)

"Upon demonstrating to the satisfaction of the Scoutmaster his ability to repeat the Scout Oath and Law in full and his thorough knowledge of their meaning, and upon meeting the following requirements, the boy formally subscribes to the Oath and Law and is registered

as a Tenderfoot Scout, and is then entitled to wear the Tenderfoot Badge and the Official Uniform of the Boy Scouts of America."

THE SCOUT OATH

On my honor I will do my best—

1. To do my duty to God and my country, and to obey the Scout Law.

2. To help other people at all times.

3. To keep myself physically strong, mentally awake, and morally straight.

(Note—Out of the past of the race has come only one oath which ranks with this Scout Oath of the young American citizen. That was the oath the young Athenian citizen took when he became 17 years of age.)



OATH OF THE ATHENIAN YOUNG MAN

"We will never bring disgrace on this, our city, by an act of dishonesty or cowardice.

"We will fight for the ideals and Sacred Things of the city both alone and with many.

"We will revere and obey the City's laws, and will do our best to incite a like reverence and respect in those above us who are prone to annul them or set them at naught. We will strive increasingly to quicken the public's sense of civic duty.

"Thus in all these ways we will transmit this city, not only not less, but greater, better, and more beautiful than it was transmitted to us."



IN PERSIA

While the boy of ancient Persia had no oath, he was expected to learn three things:

- (1) To ride a horse.
- (2) To shoot a bow.
- (3) To speak the truth.

NATIONAL COUNCIL OFFICE

A Personal Greeting

MY DEAR SCOUT:—

As a registered Scout you are now on Uncle Sam's Team and a member of the world's largest—"Boys' Gang"—nearly two million throughout the world. Your Certificate of Membership gives you many privileges—Patrol, Troop, community activities, the right to wear the Official Uniform and Badges—the joy and thrills of the Scout camp and hikes.

It also involves definite responsibilities—loyalty to your Patrol—Troop—Scoutmaster, and fidelity to our Scout Oath—and Law—our Motto "Be Prepared" and our "Daily Good Turn."

As a Scout you have the opportunity to advance yourself and receive recognition in accordance with your own effort and determination. Hit the line hard. Play the game according to the rules. Remember "Once a Scout, Always a Scout." Do not depend upon your Uniform and Badge or Membership Certificate as the only means by which your associates may know you are a Scout. Much joy and happiness to you.

(Signed)

James E. West

Chief Scout Executive.



Each Scout should see that he is re-registered by the time his membership expires. This expiration date appears on the Certificate.



CODES OF HONOR

The strong men of every age and every race have always had their codes of honor. In ancient Japan, among the sun-worshipping Incas of Peru, the Knights of the Middle Ages, the Crusaders, the American Indians, the hardy frontiersmen of early America—all these had their codes of honor. Even so, the newer civilization of America, touched by the laws of Moses and the teachings of Christ, has built the code of Washington and Lincoln and Roosevelt and Wilson—the code of strong, clean American Citizenship—the **law of the Scout**.

Requirement No. 1 (b)

“Know the Scout Law.”

“The boy formally subscribes to the Oath and Law.”

THE SCOUT LAW

Just as every Knight pledged his loyalty and life to his King, so every lad seeking admission to the great world brotherhood of Scouting, takes the Scout Oath and Law, as **his own code of action**.

Every Scout knows this Law (with its 12 points).

Every real Scout lives it.

[In learning the Scout Law, learn not only the title “A Scout is Trustworthy,” but the entire text given under such title.]



1. A SCOUT IS TRUSTWORTHY

A Scout's honor is to be trusted. If he were to violate his honor by telling a lie, or by cheating, or by not doing exactly a given task, when trusted on his honor, he may be directed to hand over his Scout Badge.

2. A SCOUT IS LOYAL

He is loyal to all to whom loyalty is due, his Scout leader, his home, and parents and country.



3. A SCOUT IS HELPFUL

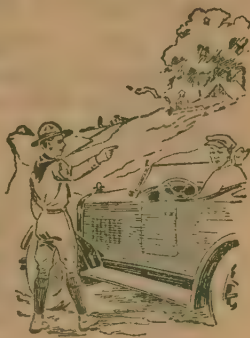
He must be prepared at any time to save life, help injured persons, and share the home duties. He must do at least one "Good Turn" to somebody every day.





4. A SCOUT IS FRIENDLY

He is a friend to all and a brother to every other Scout.



5. A SCOUT IS COURTEOUS

He is polite to all, especially to women, children, old people and the weak and helpless. He must not take pay for being helpful or courteous.



6. A SCOUT IS KIND

He is a friend to animals. He will not kill nor hurt any living creature needlessly, but will strive to save and protect all harmless life.





7. A SCOUT IS OBEDIENT

He obeys his parents, Scoutmaster, Patrol Leader, and all other duly constituted authorities.



8. A SCOUT IS CHEERFUL

He smiles whenever he can. His obedience to orders is prompt and cheery. He never shirks nor grumbles at hardships.

9. A SCOUT IS THRIFTY

He does not wantonly destroy property. He works faithfully, wastes nothing, and makes the best use of his opportunities. He saves his money so that he may pay his own way, be generous to those in need, and helpful to worthy objects. He may work for pay, but must not receive tips for courtesies or "Good Turns."





10. A SCOUT IS BRAVE

He has the courage to face danger in spite of fear, and to stand up for the right against the coaxings of friends or the jeers or threats of enemies, and defeat does not down him.



11. A SCOUT IS CLEAN

He keeps clean in body and thought, stands for clean speech, clean sport, clean habits, and travels with a clean crowd.



12. A SCOUT IS REVERENT

He is reverent toward God. He is faithful in his religious duties, and respects the convictions of others in matters of custom and religion.



Getting on the Team

By FIELDING H. YOST

*Director Intercollegiate Athletics, Professor Physical Education,
University of Michigan*



"HURRY-UP" YOST

Getting on the team,—whether it is the team of the smallest village school or of the greatest university,—is in many respects one and the same thing. Certain rules must be observed. Certain principles must be followed. Certain guides of conduct must be ever before you. And how closely these rules and principles and guides follow the code of the Scout!

Like a Scout, to make the Michigan team, for example, you must be clean through and through. You must be above stooping to unfair and unsportsmanlike practices. You must view the game not as an end in itself but as an opportunity to prepare for the bigger game of living. Making the Team at Michigan is not confined to the gridiron, the diamond, the field or the court or cinder track. You must be more than an athlete. You must be a gentleman—otherwise the lessons of the game will mean nothing to you and you will leave behind you an athletic career of little more than wasted effort.

Attitude counts in getting on the team. You should look at sports in their proper relation to other things of life. You must get in the frame of mind where you are ready to go to limitless sacrifices to win as a sportsman wins and where you would not turn over your little finger to gain victory by unfair means.

Physical condition is, of course, a great factor in getting on the teams. There are training rules to be observed. You may eat certain things and there are things you must not eat. You must be abed at a certain hour. You must do nothing to weaken body or mind. Every physical function must be in tune. Mere muscular strength is not so important as agility, both bodily and mental. Learn to think fast and act fast. Out-think and out-act your opponent. Be on your toes. Throw yourself into the job of playing your best.

The moral aspect of getting on the team is more important

than might be supposed. In the first place, no coach wants a man on his team, associating with other players, who is an unfit companion for them. In the second place, no man given over to dissipation can stand the gaff. He quickly tires. He is the type who usually lacks courage at the crucial moment. He cannot take punishment and come back smiling. The coach knows all this—and a moral coward stands no chance at all in the athletic game, any more than in the game of life later on.

The mental, moral and physical things are therefore of greatest importance. This is the Great Trinity of Success—in anything. Show me a man who ranks high in each of these three things and I will point out a man who will succeed in any game of athletics or life.

To be even more specific, let us take the Scout Law and show how it applies to athletics.

A Scout is trustworthy. This is one of the most important factors in building an athletic team where every man must work in harmony and sympathy with every other; where a player must forego the opportunity of brilliant "grand stand" playing so that his team, *as a unit*, may function as a team and not as a collection of individual players. An athlete must be trustworthy. He must be on time. He must be entrusted with secret plays and other strategic knowledge. He must be the type of man who will follow instructions.

A Scout is loyal. Loyalty is one of the great attributes of the truly great athlete. In the rush of play, amid the roars of the stands, his loyalty must become a flame to light his brain, point out his road to gain or sacrifice and drive him on and on and on no matter how his tired body rebels or his mind says, "It's time now to rest." Loyalty, learned on the field of athletics is a blessed heritage of college days. It is a bulwark thrown up against life's temptations.

A Scout is helpful. Your true sportsman forgets self in helping his team-mates. On the gridiron, he must be ready to throw his body between his mate and the charge of opponents. He must be ready to cooperate, for it is cooperation and cooperation only that makes a TEAM.





far quicker than one composed of men steeped in jealousy, envy and always at cross purposes.

A Scout is courteous. An athlete who is also a sportsman is likewise courteous. You have seen a football player help a member of the opposing team to his feet. You have seen a man protect an opponent from injury when he was down and out. This is not affectation or something to make the crowds feel good. It is courtesy, consideration, gentlemanliness—call it what you will, it is playing the game as a man who is a man plays it.

A Scout is kind. At Michigan we try to instill into the minds of every athlete this attribute of friendliness and courtesy. A man who learns how to be kind through his college years will graduate with the habit of being kind. He will be ready to overlook and forgive. He will face life a bigger, broader, better man. Yes, and a stronger competitor.

A Scout is obedient. Obedience to orders is an essential of winning games. There must be a directing head to everything. There must be some one to give orders or else every human endeavor would be fraught with confusion and a team would become a mob instead of a highly intelligent composite of several men. In unison there is strength. Unison comes by obedience to a central power. Your idea may be just as good as the Coach's—perhaps better, but your team-mates look to your Coach for guidance. Give him your loyal obedience.

A Scout is cheerful. If a football team of mine at Michigan took the field in the second-half after a drubbing in the first-half with sour, glum faces, I would feel like throwing up my hands and leaving the side lines. Cheerfulness is the oil of life. It is what makes the machinery of living run smoothly. Be cheerful in the face of defeat and you will soon learn not to recognize defeat. When you do that, you will never lose.

A Scout is thrifty. This, strange as it may seem, is another important factor to be borne in mind in making the team. Thrift is saving. Save your strength. Avoid aimless running around. Don't tire yourself when it will do no good. Conserve your energy just as you save a reasonable portion of life's goods. This reserve strength will stand you in good stead later on when you need it most.

A Scout is brave. Every athlete must wipe fear from his mind to win. Fear is your enemy. If you want to get on the team, remember that bravery must be with you at all times, shoulder to shoulder, an invisible team-mate to give you confidence and keep your mind clear, alert and agile.

A Scout is clean. Athletics, requiring the greatest output of physical energy, depend for success upon a sound body. No body but a clean one is sound. Bodily laziness like mental laziness and moral indifference spells disaster for the athlete in capital letters. Keep clean in every way—physically, morally, mentally.

A Scout is reverent. Reverence, as I interpret it, is a way of looking at the big, beautiful things of life. You revere honorable old age. You revere the Bible, your mother, your father. You honor and respect them all. You look up to them from the lower level of youth and inexperience with the world. To get the most from the team and your part in its success, look deep below the surface. There is your school. Perhaps it is just a small high school in a country village. But it is like the church in many ways. In this school of yours, you are taught to live a useful, happy, contented life. It is something of a shrine, this school of yours. Its teachers, who labor with you while you learn how to adapt yourself to a livelihood or further study, are our own missionaries. They sit back, out of the rushing stream of life and give their lives to Youth and you.

"What counts in getting on the Team?" I can sum it up in a sentence: *Be a Scout—a Good Scout—You must keep yourself physically fit—mentally awake and morally straight—if you wish to give yourself a fair chance to make the team.*



Requirement No. 1 (c)

"Know the Scout Motto"

"BE PREPARED" is the Scout Motto. "BE ALWAYS READY" was the knight's motto.

A burning building, a life in danger—a Scout is **prepared** by knowing in **advance** **WHAT TO DO**; a



child falls into the water and a Scout is "prepared" to save it; someone breaks an arm, a Scout is "prepared" to give first aid, and call a doctor; a Scout is a citizen who keeps

himself strong, controls himself and learns how to meet emergencies.

A Scout learns also to "Be Prepared" to be useful in the ordinary affairs of life—obedience, respect for law, respect for others are part of his thought as well as planning out in advance what to do in a crisis.

He is also "preparing" himself to be the useful citizen America needs.

Requirement No. 1 (d)

"Know the Scout Sign"



HOW GIVEN. It is made, palm forward, fingers as in the sketch, with the right forearm at right angles to the shoulder line. This (The Scout Sign) throws the right hand slightly above the eyes, but in an easy position to snap into salute.

ITS USE. Its chief use is when giving the Scout Oath, or Scout Law though abroad it is used as a "recognition" sign.

"Scouts anywhere in the world recognize this sign. An English Scout made it over the side of a ship docking at the Cape of Good Hope and instantly a big fellow on the wharf froze into the Scout Salute—He, too, was a Scout."

ITS MEANING. The three fingers pointing upward indicate the three promises of the Scout Oath, the same as the meaning of the three-part-top of the Scout Badge. They also indicate that the Scout is climbing **upward** to bigger, finer things.

THE SCOUT LEFT HAND CLASP



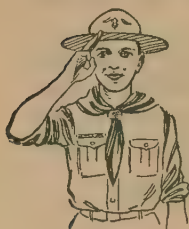
By agreement of the Scout Leaders throughout the world, Boy Scouts greet Brother Scouts with a warm left hand clasp. This means of greeting is also used in connection with all Scout gatherings. It is intended to

have this different method serve to remind Scouts that they belong to a world-wide brotherhood and that everywhere throughout the world Scouts are following this method of extending greetings as evidence of their interest in Scouts in all parts of the world. Here in America, we continue to extend the left hand in the position shown above, reminding us of the three points of the Scout Oath; the touching of the thumb and the finger indicating the bond of friendliness and worthy purpose between Scouts.



Requirement No. 1 (e)

Know the Scout Salute



HOW GIVEN. The Scout Salute is given with the right hand when the hat is either on or off. The salute is the same except in one case the fingers (at Scout Sign position) touch the brim of the hat — **i n t h e** other case, **t h e y** touch the forehead

just above the right eye.

ITS USE. The salute is used:

1. To salute The Flag of the United States (U. S. A.).

2. When greeting other Scouts.

3. When greeting, or meeting, or leaving Scout Officials.

ITS MEANING. Wherever used, its meaning is **RESPECT**.

Respect Scout Officials

As Lord Baden-Powell—Chief Scout of the World—remarked on a recent visit to America—**“THERE IS A RIGHT WAY TO GREET SCOUT OFFICIALS.** Every Scout in America should know it and use it.” It is a part of good breeding and good manners.”

1. Whenever you meet, address, greet, or leave any Scout Official salute him whether he is in uniform or not.



2. Whenever a Scout Official enters or leaves a meeting—AND IS RECOGNIZED by the one in charge of the meeting—RISE and salute him, whether he is in uniform or not.

Help make American Scouts as observant of good custom as any in the world.

Requirement No. 1 (f)

“Know the significance of the Badge”

RECOGNITION. When a Scout puts on his Badge, he joins a great band of millions of men and boys who are Scouts and who will recognize him as one. As Commissioner Beard has reminded us (page 28), WHAT A SCOUT DOES, the way he acts, also proclaims him a Scout.

PROTECTION. The official badges of the Boy Scouts of America are issued by the National Council, under Authority of Congress, only to those who are members—no one else may wear them. They are protected (as the uniform is) by the U. S. Patent Laws—Letters Patent 41512 and 41532—and any one infringing upon them is open to prosecution.

The Boy Scouts of America reserves the right to recall for cause, at any time, any badge awarded.

HISTORY OF THE BADGE.



While the Scout Badge resembles the French “Fleur-de-lis” it is really the sign of the north taken from the mariner’s compass. The compass is a vital part of the history of navigation. The Chinese claim its use as early as 2634 B. C.

It was actually used by them at sea as early as 300 A. D. Marco Polo brought the compass to Europe on his return from Cathay at the close of the 13th century.

In the centuries of adventure when men of courage sailed strange seas and made trails across unsettled continents, the north was their one and only fixed point and this three-pointed sign came to stand for the north with the explorers, pioneers and trappers, woodsmen and Scouts. It became their emblem, only slightly changed as centuries passed by.

WHAT DOES THE BADGE MEAN?

With slight changes of proportion in different countries, the Scout trefoil badge is used in almost every civilized country, as a mark of the Scout Brotherhood, of good citizenship and friendliness.



The three points (1) like the three fingers of the sign, refer to the three points of the Scout Oath.

The two stars (2) symbolize the ideals of truth and knowledge which are foundations of strong Scout citizenship.

These stars guide the Scout by night as they do the mariners on the seven seas and they symbolize the great open, wondrous out-of-doors, which the Scout enjoys in his hikes and camps, in his campfires, and his sleeping beneath the boundless open sky.

The eagle is the national emblem of the United States of America. It symbolizes freedom.

The scroll, at the bottom of the Badge (which is used as the Badge of the Second Class Scout) is turned up at its ends (3) like a Scout's mouth, because a Scout smiles as he willingly does his duty or enjoys his play.

The knot (4) at the bottom of the Badge—a simple overhand knot—is a reminder that a Scout does a "Good Turn" to some one daily.



Tenderfoot



Second Class



First Class



Star



Life



Senior Patrol Leader



Junior Assistant Scoutmaster



Miniature Eagle



Scoutmaster Silver Badge Green Background



Assistant Scoutmaster—Gold Badge, Gold Eagle, Green Background



Five Year Veteran



Ten Year Veteran



Fifteen Year Veteran



Layman's Badge Gold Badge, Gold Eagle, Blue.



Eagle

Scout Executive Silver Badge, Silver Eagle, Red Background, Silver Wreath



Field Scout Executive Silver Badge, Silver Eagle, Red Background, Gold Wreath

Scout Commissioner Silver Badge, Silver Eagle, Blue Background, Silver Wreath

District Scout Commissioner Silver Badge, Silver Eagle, Blue Background, Gold Wreath

National Council Members, Local Council Members Troop Committeemen, and Merit Badge Counselors



20 Year Pin

OFFICERS' INSIGNIA. Scout rank is designated by the following succession of values equivalent for both National and Local Councils:

- First: The silver badge with the silver wreath and silver eagle.
- Second: The silver badge with the silver eagle and the gold wreath
- Third: The silver badge with the gold eagle and the gold wreath.
- Fourth: Gold badge with a gold eagle and gold wreath.
- Fifth: Silver badge with silver eagle alone, no wreath.
- Sixth: Silver badge with gold eagle, no wreath.

The wreath indicates an officer in some executive capacity.

SCOUT RANK COLORS: The color of National Staff is red, white and blue.

The Executives' color is red.

The Commissioners' and volunteer workers' color is dark blue. This includes Troop Committeemen and Local Council Members.

The Scoutmasters' and Assistant Scoutmasters' color is green.

THE AMERICAN'S CREED*WM. TYLER PAGE**Chief Clerk, U. S. House of Representatives*

I believe in the United States of America as a government of the people, by the people, for the people; whose just powers are derived from the consent of the governed; a democracy in a republic; a sovereign nation of many sovereign states; a perfect union, one and inseparable; established upon those principles of freedom, equality, justice and humanity, for which American patriots sacrificed their lives and fortunes.

I therefore believe it is my duty to my country to love it, to support its constitution; to obey its laws; to respect its flag, and to defend it against all enemies.



Requirement No. 2 (a)

“Know the composition and history of The Flag of the United States of America.”



MY FLAG

(The Flag of the United States)

MY FLAG! — whether floating proudly in the sunshine above the Capitol at Washington, or fluttering from a stern battleship ready to protect our liberties, or borne in loyal peace

in school, church, or civic occasion—MY FLAG! The FLAG of MY AMERICA, home of liberty, soil of opportunity, tower of power rightly used—MY AMERICA!

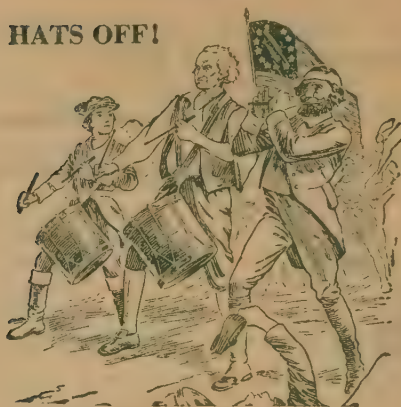


The Blue of My Flag represents

JUSTICE like the eternal blue of the star-filled heavens—its White is for PURITY, cleanness of purpose,—of word or deed—its Red is the red life-blood of brave men and women, ready to die or to worthily live for their country.



HATS OFF!



Hats off! Along the streets there comes
 A blare of bugles, a ruffle of drums,
 A flash of color beneath the sky;
 Hats off! The Flag is passing by!
 Blue and crimson and white it shines
 Over the steep-tipped, ordered lines,
 Hats off! the Colors before us fly;
 But more than The Flag is passing by.
 Sea fights and land fights, grim and great,
 Fought to make and to save the State;
 Weary marches and sinking ships;
 Cheers of VICTORY on dying lips;
 Days of plenty and years of peace,
 March of a strong land's swift increase;
 Equal justice, right and law,
 Stately honor and reverent awe.
 Sign of a nation, great and strong
 To ward her people from every wrong;
 Pride and glory and honor, all
 Live in the colors to stand or fall.

Hats off! Along the street there comes
 A blare of bugles, a ruffle of drums,
 And loyal hearts are beating high;
 Hats off! The Flag is passing by!

—(H. H. Bennett).

WHAT IS BACK OF IT?

When you've taken off your hat to The Flag—have you ever tried to see the long line of folk who made it possible?

Think a moment! Under That Flag, government by the people first grew. Every brave man who struggled for liberty in civilization has given something to make such a flag possible. The builders of the pyramids who also builded our alphabet—the thinking Greeks



whose Leonidas with a handful of picked fighters, held the Persians at bay at Thermopylae long enough to save European civilization—the Romans with their law and citizenship wherever Cæsar's legions went—the brave Von Winkelried, the Swiss patriot who opened for his comrades a hole in the line of Austrian spears by gathering an armload into his own breast—these men unknowing were making America's ideals possible.



The "Magna Charta" which the English Barons with swords in hand forced King John to sign—this gave us freedom from unlawful treatment and fixed our rights of trial by jury.

Columbus facing a trackless sea—storms without and mutiny within! Capt. John Smith of the Virginia Colonies! saved by Pocahontas from naturally hostile Indians—the Mayflower with its Puritans—the Catholic settlers in Maryland, the French Priests from Canada to the Gulf, the Huguenots in the south, the Quakers in Penn-

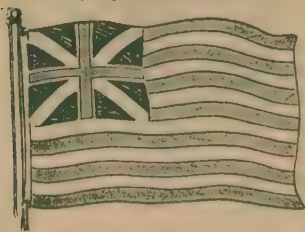


sylvania, all these helped to build, as have more recent millions, the America our Flag represents.

FIRST FLAGS

Of course the first flags of the settlements were those of the nations whence they had come. Later all the Thirteen Colonies came under the flag of England. Gradually the Colonies felt the need for a new Flag of "THEIR OWN."

When the British Troops were besieged in Boston in 1775 (2 years after the Tea Party) the need for a flag

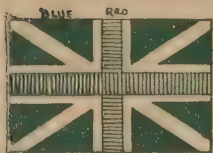


GRAND UNION FLAG

led to the appointment of a Committee to plan a flag. Benjamin Franklin was Chairman. They recommended a flag of 13 stripes of alternate red and white with a union composed of the crosses of St. George and St. Andrew—still English by

that emblem. On Jan. 2, 1776, this flag was first flown over Washington Headquarters before Boston.

About this same time, Boston had floating batteries in



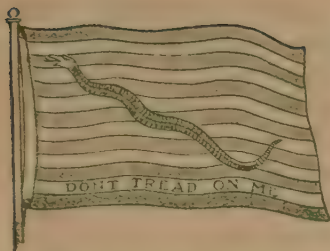
Pre-revolution Colonial Flag



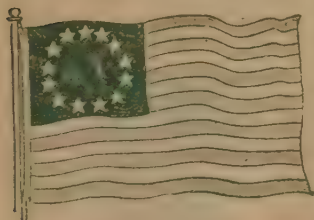
Continental Flag 1775-77



Bunker Hill Flag 1775



the harbor and the six "Washington" cruisers were on the high seas—they flew from their masts the Pine Tree Flag. The Declaration of Independence of course settled the fate of the "Union" Flag. The Continental Navy therefore used the Rattlesnake Ensign, showing a rattler with 13 rattles on the face of the Stripes. Most vital interest, however, centers in our "OLD GLORY."



"OLD GLORY"

THE BEGINNING OF OUR PRESENT FLAG OF THE UNITED STATES

Washington was in Philadelphia at the request of Congress from May 22 to June 5, 1776. According to the Betsy Ross tradition,

Washington (in the presence of Robert Morris and George Ross) actually pencilled the design after she had suggested the five-pointed star. This was her first Flag, but for the next half century her little upholstery shop at 239 Arch Street, produced and sold flags.

Indeed the Pennsylvania Naval records show that on May 26, 1777, an order was drawn on "William Webb to Elizabeth Ross for fourteen pounds, twelve shillings and two pence, for making ship's colors, etc."

Apparently the battle in which America first fought under a Flag of Stars and Stripes was at Brandywine, in September, 1777. A Frenchman fired the first salute on February 14, of the next year, in honor of Capt Paul Jones, as his RANGER entered the Harbor of Quiberon, France. Since then this Flag has been carried around the world by ship and by airplane as The Flag of a people who wish to be just.

On June 14, 1777, Congress in the midst of a series of Naval resolutions, passed the following:

“RESOLVED: that The Flag of the thirteen United States be thirteen stripes, alternate red and white; that the Union be thirteen stars, white on a blue field, representing a new constellation.”

This made “OLD GLORY” our official Flag.

We observe Flag Day (June 14) to commemorate this event. It is the official birthday of The Flag of the United States. When Vermont and Kentucky had come in, new stripes and new stars were added in 1795. It was this fifteen-striped Flag that flew over Fort McHenry in Baltimore Harbor on that historic night of September 13, 1814—described in our National Anthem.

This fifteen-striped Flag continued to be the official Flag until 1818 although five more States had come in (see page 55). It had then become apparent that a stripe added for every new State would soon



*The Easton (Pa.) Flag
(Flown July 8, 1776)*

render The Flag unwieldy and unsymmetrical, so on April 4, 1818, a bill was signed by President James Monroe restoring the design of The Flag to the original thirteen stripes, but one star for each State.

Stars Represent States

Starting in the upper left hand corner and reading each row from left to right, gives the star of each State in order, with the date of the State's ratification of the Constitution and admission to the Union as follows:

First Row: 1) Delaware, 1787; 2) Pennsylvania, 1787; 3) New Jersey, 1787; 4) Georgia, 1788; 5) Connecticut, 1788; 6) Massachusetts, 1788; 7) Maryland, 1788; 8) South Carolina, 1788.

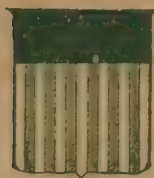
Second Row: 9) New Hampshire, 1788; 10) Virginia, 1788; 11) New York, 1788; 12) North Carolina, 1789; 13) Rhode Island, 1790; 14) Vermont, 1791; 15) Kentucky, 1792; 16) Tennessee, 1796.

Third Row: 17) Ohio, 1803; 18) Louisiana, 1812; 19) Indiana, 1816; 20) Mississippi, 1817; 21) Illinois, 1818; 22) Alabama, 1819; 23) Maine, 1820; 24) Missouri, 1821.

Fourth Row: 25) Arkansas, 1836; 26) Michigan, 1836; 27) Florida, 1845; 28) Texas, 1845; 29) Iowa, 1846; 30) Wisconsin, 1848; 31) California, 1850; 32) Minnesota, 1858.

Fifth Row: 33) Oregon, 1859; 34) Kansas, 1861; 35) West Virginia, 1863; 36) Nevada, 1864; 37) Nebraska, 1867; 38) Colorado, 1876; 39) North Dakota, 1889; 40) South Dakota, 1889.

Sixth Row: 41) Montana, 1889; 42) Washington, 1889; 43) Idaho, 1890; 44) Wyoming, 1890; 45) Utah, 1896; 46) Oklahoma, 1907; 47) New Mexico, 1912; 48) Arizona, 1912.



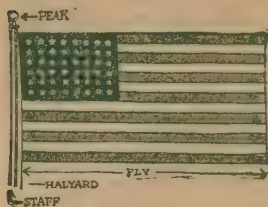
The Shield



The Seal of the
United States

It should also be noted that The Shield of United States (which is taken from The Great Seal of the United States) has thirteen vertical stripes, seven white and six red (just the reverse of the stripes in The Flag) with a blue chief *without* stars. Note that the Eagle in the Seal is facing his right, the danger point and therefore the point of Honor (as distinguished from the left, "Sinister" a point of Dishonor.) The proportions of the Shield are as follows: Height, 6; Width, 6; Chief (Blue), 2.

The proportions of The Flag as prescribed by Executive Order of President Taft, October 29, 1912, are as follows:



Hoist (width) of Flag—1

Fly (length)—1.9

Hoist (width) of Union $\frac{7}{13}$

Fly (length) of Union 0.76

Width of each strip— $\frac{1}{13}$ of hoist

Diameter of Star—.0616

Flag Facts

"The Flag of the United States of America" is the official name of The Flag, and it should always be spoken or written of in this way. In the army it is called the "National Flag." When carried by an Infantry Regiment (or by any foot or unmounted unit) it is called a "Color." When carried by a Cavalry Regiment (or by any mounted, horse or motorized unit) it is called a "Standard."

The National salute to The Flag is 21 guns. The salute is not fired on Sunday unless required by international courtesy.

The Army Garrison Flag measures 20 x 38 feet; the Storm Flag and the Recruiting Flag are 5' x 9' 6". The Post Flag 10' x 19'. The "Color" is 4' 4" x 5' 6" and the Standard is 3' x 4'.

Bibliography of Flag Books

"The Flag of the United States and Other National Flags"

Admiral Geo. H. Preble

"The Stars and Stripes and Other American Flags"

Peligi D. Harrison

"The Flag Number of the National Geographic Magazine"

October, 1912

"The Birth of our Flag and Flag Etiquette"

Louis Bancroft Runk

In meeting the following requirement 2 (b), it is urged that the candidate be given the opportunity to ACTUALLY USE The Flag and extend respects to it. The test should involve the actual correct USE, rather than "telling how."

Requirement No. 2 (b)

“And the customary forms of respect due to it.”

Respects Due The Flag of the United States of America

It has been said that as a people we know very little about our Flag and are yet more careless in observance of the respects due it. During street parades thousands fail to stand at attention and salute their Flag. It is important therefore, that Scouts—as good citizens—should *know* about their Flag and modestly help to set the proper example for its use.

The Pledge of Allegiance

Pledges of allegiance to The Flag, while prescribed in some countries, are unofficial in the United States, except the Oath of Allegiance to the United States.

In the Scout Movement it is required by the National Constitution and By-Laws that every commissioned officer shall be an American citizen, or have declared intention to become such. Minors shall take an oath of allegiance to The Flag and Government of the United States.

Scouts use the following form of pledge to The Flag of the United States of America:

“I pledge allegiance to The Flag of the United States of America and to the Republic for which it stands; one Nation indivisible, with liberty and justice for all.”

When taking this pledge in ranks the Scout salutes at leader's command and holds the salute through the entire pledge. If taking it as an individual, he salutes, holding the salute through the entire pledge.





Respect The Flag

"When you see The Stars and Stripes displayed, son, stand up and take off your hat. Somebody may titter. It is in the blood of some to deride all expression of noble sentiment. You may blaspheme in the street and stagger drunken in public places, and the bystanders will not pay much attention to you; but if you should get down on your knees and pray to Almighty God or if you should stand bare-headed while a company of old soldiers marches by with flags to the breeze, some people will think you are showing off.

"But don't you mind! When Old Glory comes along, salute, and let them think what they please! When you hear the band play 'The Star Spangled Banner' while you are in a restaurant or hotel dining room, get up even if you rise alone; stand there and don't be ashamed of it, either!

"For of all the flags since the world began there is none other so full of meaning as The Flag of this country. That piece of red, white and blue bunting means five thousand years of struggle upward. It is the full-grown flower of ages of fighting for liberty. It is the century plant of human hope in bloom.

"Your Flag stands for humanity, for an equal opportunity to all the sons of men. Of course we haven't arrived yet at that goal; there are many injustices yet among us, many senseless and cruel customs of the past still clinging to us, but the only hope of righting the wrongs of men lies in the feeling produced in our bosoms by the sight of that Flag.

"Other flags mean a glorious past, this Flag a glorious future. It is not so much The Flag of our fathers as it is The Flag of our children, and of all children's children yet unborn. It is The Flag of tomorrow. It is the signal of the "Good Time Coming." It is not the flag of your king—it is The Flag of yourself and of all your neighbors.

"Don't be ashamed when your throat chokes and the tears come, as you see it flying from the masts of our ships on all the seas or floating from every flagstaff of the Republic. You will never have a worthier emotion. Reverence it as you would reverence the signature of the Deity.

"Listen, son! The band is playing the National Anthem—"The Star Spangled Banner"! They have let loose Old Glory yonder. Stand up—and others will stand up with you."

FRANK CRANE,
in *New York Globe*.



Saluting The Flag

Saluting The Flag by individuals and organized civic or military bodies is an almost universal custom in every country.



SALUTE TO THE FLAG

(At "Retreat," playing of National Anthem, and other Ceremonies)

Face The Flag!

Scouts not in ranks

In Uniform:—Come to attention and salute.

Not in Uniform:—Hold hat in right hand over heart and stand at attention.

Scouts in ranks

In Uniform or not:—

All salute but for uniformity command may be given by Scoutmaster.

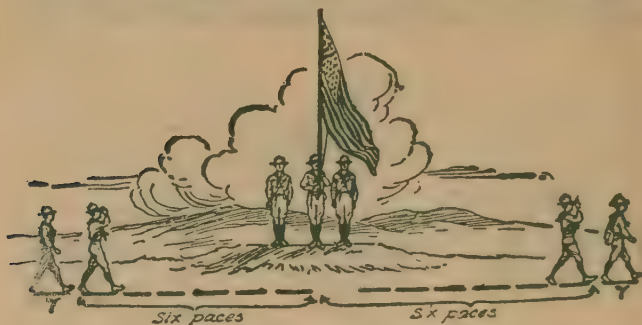
In either case, position is held from the first to the last note of the bugle or the band.

Outdoors

During the ceremony of hoisting or lowering The Flag all persons present should face The Flag, stand at attention and salute. The salute to The Flag in the moving column is rendered at the moment The Flag passes.

When The Flag of the United States is passing on parade or review, the spectators, if walking, should halt, and if sitting should rise and stand with their hats placed at their left shoulders until The Flag has passed. This salute should be rendered every time The Flag passes. Women should salute by placing the right hand over the heart. A scout in uniform keeps his hat on and salutes, commencing his salute a short period before the colors reach a point opposite him and holding it until they have passed. If not in uniform, he uncovers and stands at atten-

tion. If in ranks, the salute may, for uniformity, be given together on command.



When passing The Flag the Scout comes to salute six paces before reaching The Flag and holds it until six paces past. If in ranks, each minor unit salutes together at the command of its leader. If not in uniform, one uncovers and faces The Flag while passing.

Flag in a Room

A Flag unfurled and hung in a room in which officers or enlisted men of the Army are present will be saluted by them the first time they may have occasion to pass it, but not thereafter. (From Flag Circular.) This rule should apply with Scout Officials and Scouts.

Extract from Address of President Harding at the National Flag Conference

(Washington, D. C., June 14, 1923)

"I can understand how The Flag owes considerably more to the service man of the Republic than it does to the ordinary citizen, but I can't understand why the soldier or the sailor or the ex-service man in National defense owes any more to The Flag than everybody else in the United States of America. And so everything we do to bring The Flag into proper consideration by the citizens of the Republic is entirely proper and deserves to be cordially commended.

"I witnessed last week a very pleasing manifestation of the impression created by proper respect for The Flag. It was during the first parade of the visiting Shriners. Opposite the reviewing stand in which I sat was a young Naval officer, quite apart from any others in the armed service of the Government. Those who witnessed the parade will recall that every Shrine carried the colors of the Republic, and it called for pretty frequent salutes; but every time The Flag came by, over in the reviewing stand on the other

side of the Avenue appeared this young officer in white, promptly rising to salute the colors as they passed—the only one performing that service that we noticed in all the large company assembled in that reviewing stand.

"Well, it made a very distinct impression, and it recalled to my mind the satisfaction that comes to the American breast in every manifestation of our reverence to the colors. I don't suppose there is any law to punish the President if he didn't stand at salute when the colors passed, but I wouldn't be happy in my official capacity if I didn't do it.

"We have an obligation quite apart from the consideration we show the colors. We have the greatest obligation to maintain in America unimpaired the things for which The American Flag stands. That is the obligation; and while we are doing that which shows reverence for the colors, let us always be mindful of doing the things that make us all the colors represent us to be. That is an Americanization task; that is a patriotic task; that is the task of good citizenship, and in its performance there will come rewards to all of us, and we shall be assured of a contribution to a better and great Republic."

"The Star-Spangled Banner"

When the National Anthem is played, those present in uniform should salute at the first note of the Anthem, retaining this position until the last note of the Anthem. When not in uniform, men should remove the headdress and hold it as in the salute to The Flag. Women should render the salute to The Flag. When there is no Flag displayed, all should face toward the music.

When "The Star-Spangled Banner" is played as a whole by the band or on a formal occasion, every Scout should stand at attention with the hand raised to the brim of the hat (or to his forehead if in uniform, but without hat), and he should retain that position until the last note of the music, when the hand should be dropped to the side. This should be done when The Flag is lowered at Retreat, and the band plays "The Star-Spangled Banner" or the bugler sounds "To the Colors." All Scouts in uniform and out of ranks should face toward The Flag.

Laws Protecting The Flag

Numerous laws provide penalties for the desecration, mutilation and improper use of The Flag of the United States.

The Department of Justice has issued a warning against desecration of The Flag of the United States by aliens in the following words:



"Any alien enemy tearing down, mutilating, abusing or desecrating The United States Flag in any way will be regarded as a danger to the public peace or safety within the meaning of regulation 12 of the proclamation of the President, issued April 6, 1917, and will be subject to summary arrest and punishment."

A Federal Law (approved Feb. 8, 1917) provides that trademarks cannot be registered if they use, "The Flag, coat-of-arms or other insignia of the United States, or any simulation thereof."

It has been further determined that this applies to advertising of any kind

The Postal Department does not object to the use of envelopes bearing pictures of The Flag if placed on the back so that cancellation of the stamp will not desecrate The Flag.



What to Do with Worn-out Flags

"Old or worn-out Flags should not be used either for banners or for any secondary purpose. When a Flag is in such condition that it is no longer a fitting emblem for display, it should not be cast aside nor used in any way that might be viewed as disrespectful to the National colors, but should be destroyed as a whole, privately, preferably by burning or some other method lacking in any suggestion of irreverence or disrespect due the emblem representing our country."—(From Flag Circular issued by the War Department April 14, 1923.)

Flags of historic value, are carefully preserved, together with the historic record.

When to Fly The Flag

The Flag of the United States should be displayed on:

Lincoln's Birthday	February 12th
Washington's Birth- day	February 22nd
Mother's Day	Second Sunday in May
Memorial Day	May 30th
Flag Day	June 14th
Independence Day	July 4th
Labor Day	First Monday in Sep- tember
Armistice Day	November 11th



In many towns and cities, Scouts are made official guardians of The Flag, raising and lowering it daily in school yards or public squares.

Flags should not be permitted to fly on civilian property before sunrise or after sunset. The one exception to this is at the grave, in Frederick, Md., of Francis Scott Key, author of "The Star-Spangled Banner," above which The Flag floats day and night. The Flag should always be hoisted briskly, and lowered slowly and ceremoniously.



NOTE—It may be remarked in this connection that there are only three buildings in America over which The Flag of the United States flies officially night and day continuously, viz., over the east and west fronts of the National Capitol, over the House of Representatives Office Building and over the Senate Office Building. The two flags flying over the Capitol are replaced every six months. The Flag flies over the White House from sunrise to sunset, but only when the President is present in Washington.

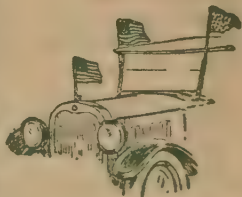
Displaying The Flag

There is no Federal Law laying down hard and fast rules for civilians as to displaying, hanging, or saluting The Flag. There are, however, certain fundamental rules of heraldry and good taste which make the matter very

simple. The National Flag represents the living country and is itself considered as a living thing. The Union of stars of The Flag is the honor point; in ancient times the sword arm was the point of danger and hence, of honor.

As you look at the "living" Flag **its right is your own left**, see code numbers 2, 3, 6, and 8.

This becomes clear when you remember that The Flag is not mere material, but a living symbol, having its own face—no back, but all Flag through and through—and its own right and left. When not on a staff the hoist becomes the head and honor point. If on a staff, then the peak of the staff becomes the head and honor position, next to which the Union is placed. When displayed in a window it should be placed the same way; that is, with the Union or blue field to the left of the observer in the street.



The Flag Code



1. The Flag should be displayed only from sunrise to sunset, or between such hours as may be designated by proper authority. It should be displayed on national and state holidays and on historic and special occasions. The Flag should always be hoisted briskly and lowered slowly and ceremoniously.

2. When carried in a procession with another flag or flags, The Flag of the United States should be either on the marching right, i.e., The Flag's own right, or when there is a line of other flags The Flag of the United States may be in front of the center of that line.

3. When displayed with another flag against a wall from crossed staffs, The Flag of the United States should be on the right, The Flag's own right, and its staff should be in front of the staff of the other flag.



4. When a number of flags are grouped and displayed from staffs, The Flag of the United States should be in the center or at the highest point of the group.



5. When flags of States or cities or pennants of societies are flown on the same halyard with The Flag of the United States, The National Flag should always be at the peak. When flown from adjacent staffs The Flag of the United States should be hoisted first. No flag or pennant should be placed above or to the right of The Flag of the United States. (The Flag's own right.)



6. When flags of two or more nations are displayed they should be flown from separate staffs of the same height and the flags should be of approximately equal size. (International usage forbids the display of the flag of one nation above that of another nation in time of peace.)



7. When The Flag is displayed from a staff projecting horizontally or at an angle from the window sill, balcony, or front of the building, the union of The Flag should go clear to the head of the staff unless The Flag is at half mast.





8. When The Flag of the United States is displayed in a manner other than by being flown from a staff it should be displayed either horizontally or vertically against a wall, the union should be uppermost and to The Flag's own right, i.e., to the observer's left. When displayed in a window it should be displayed the same way, that is, with the union or blue field to the left of the observer in the street. When festoons, rosettes, or drapings of blue, white and red are desired, bunting should be used, but never The Flag.



9. When displayed over the middle of the street, as between buildings, The Flag of the United States should be suspended vertically with the union to the north in an east-and-west street or to the east in a north-and-south street.



10. When used on a speaker's platform, The Flag should be displayed above and behind the speaker. It should never be used to cover the speaker's desk nor to drape over the front of the platform. If flown from a staff it should be on the speaker's right.



11. When used in unveiling a statue or monument, The Flag should not be allowed to fall to the ground but should be carried aloft to wave out, forming a distinctive feature during the remainder of the ceremony.



12. When flown at half staff, The Flag is first hoisted to the peak and then lowered to the half-staff position, but before lowering The Flag for the day it is raised again to the peak. On Memorial Day, May 30th, The Flag is displayed at half staff from sunrise until noon and at full staff from noon until sunset, for the Nation lives and The Flag is the symbol of the living Nation.

13. When used to cover a casket

The Flag should be placed so that union is at the head and over the left shoulder. The Flag should not be lowered into the grave nor allowed to touch the ground. The casket should be carried foot first.



14. When The Flag is displayed in church it should be from a staff placed on the congregation's right as they face the clergyman. The service flag, the state flag, or other flag should be at

the left of the congregation. If in the chancel, The Flag of the United States should be placed on the clergyman's right as he faces the congregation and other flags on his left.



15. Flags flown from fixed staff are placed at half-staff to indicate mourning. When displayed on a small staff, as in a parade, mourning is indicated by attaching two small streamers of black crepe to the spear head, allowing the streams to fall naturally. Crepe is used on the flag staff only by order of the President.



16. Use bunting for decoration.

The blue color in the bunting should invariably be at the top. If the blue in the bunting should contain stars, it



would emphatically indicate that the stars be on top, for if placed below, it would be equivalent to placing The Flag upside down.

CAUTIONS

1. Do not permit disrespect to be shown to The Flag of the United States of America.

2. Do not dip The Flag of the United States of America to any person or any thing. The regimental color, State flag, organization or institutional flag will render this honor.

3. Do not display The Flag with the union down except as a signal of distress.

4. Do not place any other flag or pennant above or, if on the same level, to the right of The Flag of the United States of America.

5. Do not let The Flag touch the ground or the floor, or trail in the water.

6. Do not place any object or emblem of any kind on or above The Flag of the United States of America.

7. Do not use The Flag as drapery in any form whatsoever. Use bunting of blue, white and red.

8. Do not fasten The Flag in such manner as will permit it to be easily torn.

9. Do not drape The Flag over the hood, top, sides or back of a vehicle, or of a railroad train or boat. When The Flag is displayed on a motor car, the staff should be affixed firmly to the chassis, or clamped to the radiator cap.

10. Do not display The Flag on a float in a parade except from a staff.

11. Do not use The Flag as a covering for a ceiling.

12. Do not carry The Flag flat or horizontally, but always aloft and free.

13. Do not use The Flag as a portion of a costume or of an athletic uniform. Do not embroider it upon cushions or handkerchiefs nor print it on paper napkins or boxes.

14. Do not put lettering of any kind upon The Flag.

15. Do not use The Flag in any form of advertising nor fasten an advertising sign to a pole from which The Flag is flown.

16. Do not display, use or store The Flag in such a manner as will permit it to be easily soiled or damaged.



Requirement No. 3

"Tie the Square Knot and any eight of the following knots: Sheet Bend, Bowline, Fisherman's, Sheepshank, Slip, Clove Hitch, Timber Hitch, Two Half Hitches, Carrick Bend, Miller's Knot, Rope Halters, Pipe Hitch, Stevedore, Barrel Hitch, Girth Hitch, Binder Twine Bend, Lariat Loop, Hitching Tie."

To use ropes and cords one must know how to make them *hold*. Knots, therefore, are in constant use by sailors, explorers, mountain climbers, engineers and mechanics.

Useful Knots

Three things you expect of a good knot.

- (a) That it can be tied quickly.
- (b) That it will hold fast, or in other words that you can depend upon it doing the job it was supposed to do.
- (c) That it can be easily untied.

Elementary Terms

Before you go any further, there are a few terms about knots you will have to know.

The standing part. This is the long end of the rope. Sometimes it isn't used at all; sometimes it is the part around which the rope end is turned as in making hitches for example.

The end (or running part) is the short free end, which by being interwoven with the standing part or the end of another rope forms the hitch or knot.



The bight is formed by bending the rope, keeping the two parts parallel alongside each other.

The loop is made out of a bight by simply crossing the two parts.

You must understand that a rope always consists of the standing part and the end, and that all the Tenderfoot knots are formed by combining bights and loops in different ways. The Square Knot for example consists of two bights, the Sheet Bend of a bight and a loop, the Clove Hitch of two loops, the Sheepshank of two bights and two loops, and so forth.

End Knots



OVERHAND
KNOT

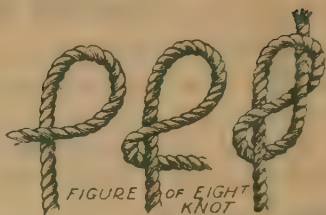


FIGURE OF EIGHT
KNOT

The Overhand and the Figure of Eight Knots should be known by all Scouts though they are not parts of the Tenderfoot requirements.



STEVEDORE KNOT

Knots for Tying Two Ropes Together



SQUARE KNOT (REEF KNOT)

The commonest knot for tying two ropes of even thickness together, frequently used in First Aid bandaging. Never slips or jams; easy to untie.



SHEET BEND

Used for tying together two ropes of different thickness.





BINDER-TWINE BEND

Was originally designed for tying together ends of binder twine used on grain harvesters.



FISHERMAN'S KNOT



Used by fishermen for joining strands of gut.



CARRICK BEND



Used for joining heavy or stiff ropes together.

Knots Used for Tying Rope to an Object



SLIP KNOT

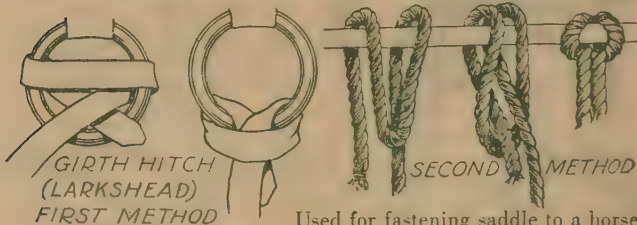


A very common knot for forming a noose, but is inferior to two half hitches.



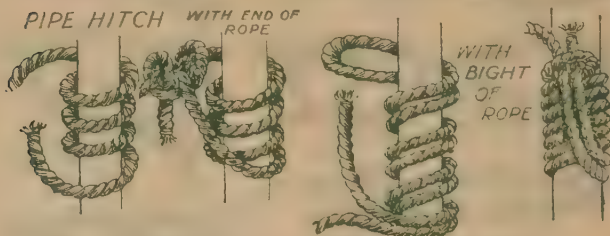
Used for tying rope to pole.

Used for dragging logs.



FIRST METHOD

Used for fastening saddle to a horse.



Used for pulling cylindrical objects.

Clove hitch is the most used of all hitches, it being very easy to tie and not at all apt to slip.



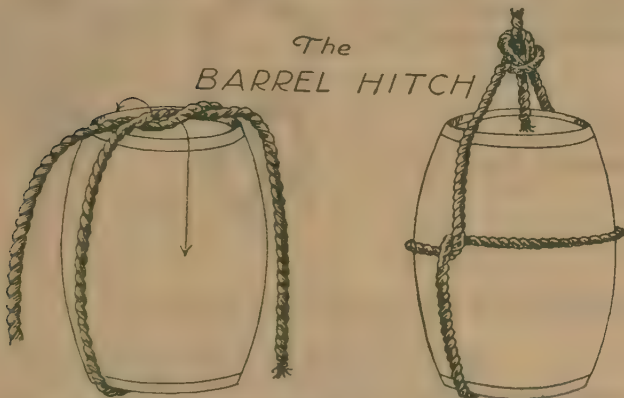
Miller's knot is used for tying sacks of flour, grain, etc., on the farm and in the store.



HITCHING TIE

Used for tying halter ropes to a post or a ring.

The BARREL HITCH



The barrel hitch is used in hoisting barrels or other cylindrical objects.

Knots Used for Making Permanent Loops

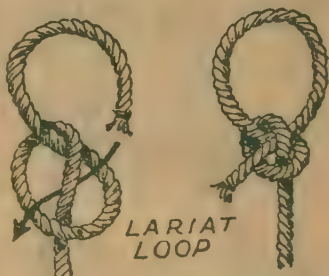


BOWLINE

A very important knot. Forms a loop that will not slip. Used for several life saving purposes, as well as for fastening horse or boat to a post.



The rope halter is used to put over the neck of cattle and young stock, and often also for horses, to make it possible to lead them and fasten them to a post.



The lariat loop is used for making a lariat, out of an ordinary rope.

Knots Used for Shortening the Rope



SHEEPSHANK

Used for shortening a rope. Only holds as long as there is a strain on it.

Ropes

From the very dawn of human intelligence men have found it necessary to **fasten things together**.



Vines, tree bark, branches, as well as strips of animal hides and leather have served us.

Ropes (anything over 1 inch in diameter) and cords and twines and even threads are our more modern means to the same end. In camping, on board ship, in lumber camps, about cranes and derricks and pulleys, indeed even as belts in factories, ropes and cords are in constant use. The farmer uses them constantly.

All sewing is dependent upon threads and cloth is merely groups of such threads woven together.

These are made from fibres found in the leaves or stems of plants, or from animal wools.

Common hemp is the fibre most often used for rope though cotton ropes are more flexible and very durable. Manila hemp is used for stiff heavy ropes, Sisal from Central America is extensively used especially in binder twine. Indian jute is also used because of its cheapness.

When the fibres have been combed out of the leaves the following steps occur:

A few **fibres** twisted together to **right** to form **yarn**: Then a few **yarns** twisted together to **left** to form a **strand**.

Three **strands** twisted together to **right** to form a



One way to whip the end of a rope or cord. Pull loop through to finish

hawser; hawsers twisted together to left to form a **cable**.

A one inch rope may have as many as 300 individual threads and the friction of each against the others gives holding strength to the rope.

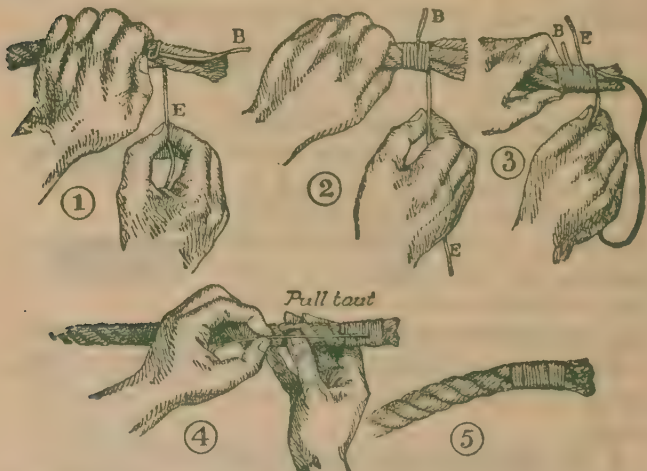
Take a small piece of string and separate it back as far as you can toward its fibres. The nature of the rope, then, is such that its ends will fray or separate and gradually unravel.

It is important, therefore, to “whip” the ends of your rope. Each Scout should have a small length of say quarter inch cord for learning these knots—for they can only be **learned** by **doing** them.

This is one of the sailor’s first secrets.



How to whip the end of cord or rope.



The idea is to “bury” the two ends so they are held by the other loops. After making several turns in (3) the end E can be pulled tight under those turns and cut off.

CHAPTER II

The Scout Uniform

The Boy Scouts of America are said to be the largest uniformed body in America. Yet, putting on the uniform does not make a fellow a Scout, but putting on the uniform is a sign to the world that one has taken the Scout obligations and folk expect Scout-like acts from one wearing it. While it is not necessary for a boy to have a uniform or any other special equipment in order to carry out the Boy Scout Program, it has been found that most boys are eager for the opportunity of having the Scout Uniform. It is comfortable, wears well, and is inexpensive. It is far better for a Troop of Scouts to do without uniforms, however, than to undertake to secure the same by soliciting contributions for that purpose. Indeed, it is advisable, whenever it can be done, for each Scout to personally earn the money with which to secure this uniform. This is so even if the boy's parents can well afford to give him the money with which to buy it.

What the Uniform Means

The Scout Uniform should be an outward expression of the Scout's inward feeling of friendliness to every other Scout, no matter to what class in society the other Scout belongs. It represents the spirit of true democracy. It definitely identifies the boy as part of the brotherhood of boys following the Scout Program in his own country as well as in practically all of the civilized nations of the world.

The uniform intensifies good comradeship, encourages loyalty to Scouting, and stimulates a feeling of self-respect which results in the Troop presenting a much smarter appearance than it otherwise would.

The Uniform Should Be Worn

1. At official Troop meetings, trips, rallies and public events, when Scouts attend in a body.

- 2 When taking tests or appearing before Court of Honor.
3. When upon any Scout service or duty.
4. It is permissible also for schools, church or special occasions.
5. It is worn always during Anniversary Week.

IMPORTANT

The uniform should be worn as a complete unit.

It should not be mixed with other clothing.

Keep it clean and in neat repair. A Scout is careful of his appearance.

When Not Worn

The Scout should not wear his uniform when engaged as an individual in any business. A Scout should earn, but he should do this in civilian clothes. The uniform should not be worn as overalls to work in, nor when hunting or drilling with a gun. These things are not part of Scout work.

The Official Uniform

The official uniform of the Boy Scouts is made up of standard khaki material. This material was selected with the greatest care. It was submitted to severe tests and chosen because of its wearing qualities.

The Boy Scout Uniform is specifically authorized by an act of Congress approved June 3, 1916, and is protected by the provisions of the Federal Charter, June 15, 1916.

It consists of the hat, shirt, shorts or breeches, belt and stockings, as shown in sketch; and all khaki colored. The official shoes are tan in color. The neckerchief (tied as shown) is of some color determined by the Troop Committee or Local Council. Sweaters, when worn, should be under the Scout Shirt.

Care of Uniform

"A Scout is Clean" says the Scout Law—so is his uniform. Small tears, rips, loose buttons should receive attention, because other Scouts have a right to expect neatness of those who wear the uniform.

Metal Badge of highest rank worn on hat (Tenderfoot, Second Class, First Class, Star Life, Eagle, or Achievement) also

Service Patrol, Leader or Junior Scoutmaster

Boy Scouts of America emblem on right pocket

Patrol emblem on right pocket

Special Temporary insignia, Leader or Junior Scoutmaster emblem on right pocket

Veteran insignia centered on right cuff, only emblems above lower edge

Merit Badges on sash, two each if worn on sleeve instead of on Merit Badge Sash

Cord or leather lanyard (optional)

Service stars 1/2 inches above left pocket flap, point up, 1/2 inches from the center to center of stars

Community name Strip worn on left sleeve above Troop Number

FOR SCOUTS

Troop Number in left sleeve, top two inches below shoulder seam

Boy Scout emblem on right pocket

Unadorned badge of highest rank centered on left pocket. If metal badge of rank is worn on shirt it is centered on left pocket. Context Medal worn on left side of flap of left pocket. Honor Medal worn on right side of flap of left pocket.

Regulation hat and hat band—no other band allowed.

Neckertie with slide, worn always, with or without rosette. Neckertie worn under coat. Scout made slide permitted.

Regulation shirt

Merit Badge Sash worn with more than 6 badges, under neckertie, over right shoulder, lower point to rest on left side of body. No Merit Badges on sleeve when sash is worn.

Regulation belt

Regulation coat worn used as outdoor garment only. No insignia.

Regulation shorts or breeches.

Khaki-colored stockings—turned down just below knee.

Tan shoes.

FOR SCOUT

Regulation hat and regulation leather hat band

No badge on hat worn by any official

Officials' coat No insignia on coat, except metal badges of office on lapels of collar 1/2 inch above notch.

Veteran Insignia centered on right cuff 1 1/2 inches above lower edge.

Regulation breeches, or regulation official's trousers (cuff optional). If latter, socks to match shoes.

Dark tan leather puttees cut in one piece, or stockings (optional)

OFFICIALS

Service Stars point up—worn 1/2 inches above left pocket, 1/2 inches from center—silver to right of gold—no more than 6 gold stars.

Khaki shirt with turned-over collar for field service.

Plain white shirt with white collar for special occasions.

Dark green tie (no ornaments)

Officials wear insignia on shirt according to same regulations as Scouts.

Dark tan shoes to match puttees (field boots for field service only)



There is a Limit to What a Uniform will stand.

Shoes should be polished and from time to time wiped with neatsfoot oil. The uniform is guaranteed by the manufacturers against fading and shrinking when properly handled in washing. It may be washed in lukewarm water with a soap similar to Ivory or any other containing little alkaline matter. (Avoid hot water.) Lay the garment on a board and scrub thoroughly with a coarse brush. Do not rub the soap directly on the khaki, but apply evenly with the brush. Rinse briskly first in lukewarm water and then in cold, to which at least two cups of coffee have been added. This helps tone the color. Garments should be wrung out by hand and rough dried. Iron by using a piece of ordinary white drill as an ironing cloth to cover the garment.



The Uniform of the Smile

By COLIN H. LIVINGSTONE
President of the Boy Scouts of America
(1910-1925)

A Scout has two uniforms, one he seldom doffs. The other he oftentimes dons. The first is a clean and smiling face, the evidence of a clear conscience and a healthy body, a wonderful invitation to every one around to look and be happy and cheerfully to do his bit. This smile is subtle and far-reaching in its influence. It is a sign of self-conquest, an emblem of leadership, compelling attention in its radiation of cheerfulness. Scouts, this uniform is yours, not made in a loom but made in the heart, and worn to make the world brighter and better and

to show every one that in your mind and life there is hope, happiness, kindness and the courage to look, to say and to act the pledges you made at the moment you promised to be a Scout, to be a leader.

Go forth, Scouts, with this smile, to win for your plan of life others who will smile with you. Carry it like an armor against temptations, discouragements and difficulties. It will put you on the upward road to success. It will win for you in many a struggle, in many a dark hour. More than all it will make you a leader by helping others to win. It will be a service, a constant good turn. Never take off the Uniform of the Smile.

Then there is the Official Uniform of the Scout which carries to every one who sees it worn the full meaning of the tremendous promises you have made when you stood up and repeated in the presence of witnessing Scouts, the Oath and Law of Scouting as your code of honor and duty to your God and your Country, and to other people at all times. When you first donned this uniform you announced to the world that you intended to be a leader and to show forth in deed and word forever after that no matter what befell, you had pledged yourself to be Trustworthy Loyal, Helpful, Friendly, Courteous, Kind, Obedient, Cheerful, Thrifty, Brave, Clean and Reverent.

The day you made these promises was one of the most solemn and one of the greatest days of your life. You put behind you and out of your life many things in which you once sought pleasure and said to the world, "I am going to make my life useful to the people I live among and LEAD others to do as I have promised to do." You became a leader. You wear this Uniform of Scouting with its emblems and badges as a declaration to every one everywhere and always that you are ready, willing and happy to lend a helping hand to any one in need, to be of service to your fellows no matter who they may be, or what self-denial or sacrifice you make on your own account.

You are a Leader. The world about—your world—expects the great things of you that you have promised to be and to do. They see your uniform. They want to trust you.

America—your country—calls you to leadership. "Be Prepared!"



TREATY-BELT GIVEN BY THE INDIANS TO PENN.



Uses for the Scout Neckerchief

The neckerchief for Scouts is a heritage from the Scouts of old, for it is worn by the pioneer and the plainsman. In various bright colors it serves to distinguish the Scouts of different districts from the Scouts of other districts. The overhand knot at the end reminds the Scout of his Daily Good Turn. It is, however, more than a part of the uniform—it is a valuable piece of Scout equipment, and an instrument for the demonstration of Scout-craft.

(By Commodore Longfellow)

SCOUTING

1. Signal Flag on Stick (Morse) (1)
2. Signal Flag Semaphore (2)
3. Life Line (Troop)
4. Rope Ladder (Troop)
5. Bag, Hobo Style (1)
6. Lashing for bundles
7. Caulking for boat
8. Sail for boat (4)
9. Covering for food
10. Belt, emergency (1)
11. Knot tying practice
12. Substitutes for clothing (4)
13. Trunks for bathing (1)
14. Apron for kitchen police
15. Troop identification
16. Good Turn Reminder (1)
17. Guard Rope (Troop)
18. Emergency sock (1)
19. Distress Signal (1)
20. Smoke Signals (1)
21. Flare (1)
22. Torn strips, trail marker
23. Bathing cap to denote classes of swimmers—Red, beginners; blue, fair swimmers; white, Life Savers

TRIANGULAR BANDAGE USES

1. Pressure of armpit Artery
2. Arm Sling (10)
3. Collar Bone Fracture (3)
4. Ankle Sprain Dressing (1)
5. Fractured Hip (7 to 9)
6. Kerchief Stretcher (5)
7. Padding for splints (several)
8. Chest Carry (1)
9. Tump Line Carry (1) Pack strap
10. Hand Bandages (1)
11. Head Bandages (1)
12. Foot Bandages (1)
13. Support for Sprained wrist
14. Tourniquet uses (1)
15. Trench Bandage (1)
16. Compress (1)
17. Smoke masks
18. Fireman's drag-free wrists
19. Tied hands carry (1)
20. Tied hands across overturned canoe
21. Tying good ankle as splint to broken one (4)
22. Guide rope to find way out of smoky room (Troop)
23. Sun shelter for injured (1)

GENERAL

1. Rope for tying animals
2. Mosquito covering for head
3. Sweat band for games
4. Team identification (games)
5. Tie for three-legged race
6. Swatters for running the gauntlet
7. Red kerchief on projecting poles in transit
8. Padding for carrying load on head
9. Repairing Harness
10. Substitute for hat or cap

CHAPTER III

Scout Troop and Patrol

A Patrol usually consists of not more than eight boys, one of whom is Patrol Leader, elected by the Patrol. Another Scout is selected to be the Assistant Patrol Leader.

The purpose of the Patrol is two-fold:

1. A convenient group for working, training, hiking and camping together.
2. It gives leadership training. A fellow learns **how** to lead by leading.

In some Troops the Patrol Leader will be wise enough to use other fellows to lead the Patrol. The best signaler can be used to lead in signal practice, so that the Patrol may become skilled in signaling.

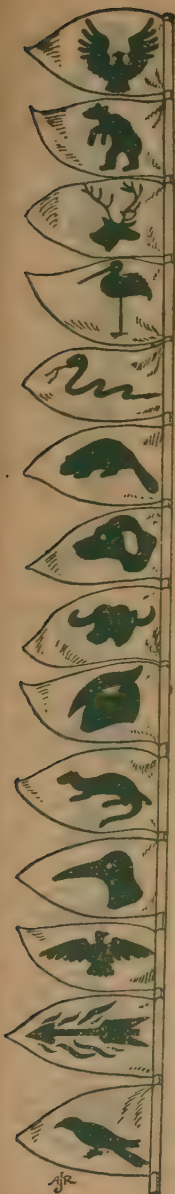
It is, however, good policy to give the various Patrol members the **chance** to lead now and then. It tries them out and may make them quicker to respond to orders themselves. In such cases, the Patrol Leader should fall into the ranks and set an example of quick obedience.

Farm Patrol

Farmer boys who are members of standard town or city Troops may be organized into a farm Scout Patrol in order to provide for their protection of farm and home requirements, though they constitute the minority membership of the Patrols.

Farm boys may organize a Scout Patrol before a Troop is possible, later several rural Patrols may form a Troop with three Patrol meetings and one Troop meeting each month.

For Patrol Flags and Calls and Information, see page 86.



Patrol Hospitality

"A Scout Troop is a brotherhood. A Scout Patrol is a very close brotherhood. Into the Patrol, your Patrol, comes a new boy. You look him over and decide that he may not be the first prize among the candidates but that you will try to help him become a good Scout.

Show him the Scout grip at once. Introduce him man-fashion to all the boys, even if an hour before you were playing with him and calling him by a well-established nickname, outside the troop. Find out right away who is to train him for Tenderfoot, and let that trainer feel the responsibility of making a success with this candidate.

At first he may be eager but uncertain. You must down his fears and keep him busy. As soon as you can, include him on a hike, for there is nothing like a long walk outdoors and a campfire, and a meal together to express true hospitality.

His Patrol is your Patrol. Your Patrol is his Patrol. Make him feel it; know it, practice it."

—Cedar Chips.

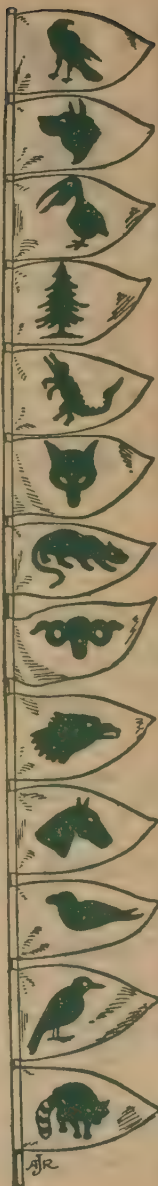
The Senior Patrol Leader

"With the Senior Patrol Leader the Scoutmaster has a very intimate friendship. He tells him all he knows of Scoutcraft. He confides to him all his hopes and disappointments; he wonders whether the boys are really getting the Scout idea, and he asks the S. P. L. what he thinks about it.

In turn the members of the Troop pass on their troubles and hopes, their thoughts and questions which they might hesitate to express to the Scoutmaster, to the S. P. L. He knows their point of view, because he is still one of them.

So the S. P. L. is a sort of connecting link, an interpreter, occupying a post of great responsibility between the boys and the men connected with the Troop."

—Cedar Chips.





If I Were a Patrol Leader

(After S. P. Walsh)

Questions for the Patrol Leader

1. Do I know about every Scout in my Patrol—each fellow's strong and weak points; ambitions; home life; special needs?
2. Can I plan and conduct Patrol meetings worth while enough to insure the bunch attending, and steady enough to provoke a second invitation from the fellow's parents in whose home we meet?
3. Can I salute and report "All present or accounted for," at every Troop meeting roll call?
4. Can I interest the fellows in continuous and thorough work for advancement in their Scout rank?
5. Can I divide the actual leadership of the Patrol so that every Scout gets a chance to do his best part in helping with the meetings, hikes, games, "Good Turns," new recruits, etc., so that all the fellows in my Patrol have a chance to develop leadership?
6. Can I patiently handle any boneheads or wise guys or rough necks, so that they will either come through with the right Scout spirit, or when every possible chance has been given them, eliminate them for the good of the Patrol and the Troop?
7. Can I keep the "GOOD TURN" idea strong in the minds of all boys in my Patrol, so that "Good Turns" are a habit?
8. Can I make the fellows proud of our Patrol's appearance, dependability, progress—so that the Patrol spirit will be strong and wholesome?
9. Can I plan a Patrol hike and lead it well enough so that eventually my Scoutmaster can trust me with the Patrol for a day without adult supervision?
10. Can I wisely lead my Patrol in its part of the Troop enterprises and have brains enough to think of new things for the patrol to do besides—e.g., for farmer boy members?
11. Can I justify my Scoutmaster's confidence in my loyal and thoughtful co-operation under his leadership for the development of the whole Troop?
12. Finally, can I make my own Scout life an unboastful example and encouragement to every fellow in my Patrol, commanding thereby respect and confidence?



Flying Eagle
Cry—Shrill "Kreeee"
Red, White and Blue

Bear
Growl—"Boorr"
Brown and Red

Stag
Call—"Baow"
Violet and Black

Stork
Cry—"Korrr"
Blue and White

Rattlesnake
Rattle pebble in Can
White and Pink

Beaver
Slap—Clap Hands
Blue and Yellow

Hound
Bark—"Bowow-wow"
Orange

Buffalo
Lowling—"Um-Maouw"
Red and White

Owl
Whistle—"Koot-Koot-Koo"
Blue

Otter
Cry—"Hoi-oi-oick"
Brown and White

Raven
Cry—"Kar-Kaw"
Black

Wood Pigeon
Call—"Book-hooroo"
Blue and Gray

Sea Gull
Call—"Kaw-hawk"
Gray

Hawk
Cry—Very shrill
"Kreeee"
Green and Black

Wolf
Howl—"How-oooo"
Yellow and Black

Pelican
Clapping of bill—
"Clap-clap-clap"
Gray and Violet

Pine Tree
Rustling as of paper
Brown and Green

Fox
Bark—"Ha-ha"
Yellow and Green

Panther
Tongue in side of
mouth—"Keeook"
Yellow

Ram
Bleat—"Ba-a-a"
Brown

Eagle
Very shrill cry—
"Kreeee"
Green and Black

Horse
Whiney—"Hee-e-e-e"
Black and White

Seal
Call—"Hark"
Black and Brown

Crow
Call—"Caw-caw"
Black and White

Racoon
Shrill whine—"Mmm
Mmm"
Black and Brown



	Cat Cry—"Meeow" Gray and Brown	
	Hippo Hiss—"Brrusssh" Pink and Black	
	Peacock Cry—"Bee-oik" Green and Blue	
	Wild Boar Grunt—"Broo'-broof" Gray and Pink	
	Lion Roar—"Eu-ugh" Yellow and Red	
	Tiger Purr—"Grrao" Violet	
	Bat High thin squeak Black and Khaki	
	Jackal Laughing cry—"Wah-wah-wah-wah" Gray and Black	
	Elephant Prolonged "Tol-loo-e" White and Blue	
	Swallow Whistling twitter Khaki and Blue	
	Bob-White Whistle—"Bob-bob-White" White and Khaki	
	Moose "Oh-ah, oh-ah, oh-ahhh" White and Gray	

Patrol "Good Turns"

One activity which will give a Patrol lots of fun and make a host of friends for it, is for the Patrol, working together, to find chances to do "Good Turns" about the homes or churches or public buildings of the Patrol's own neighborhood. Try it!

The Scout Troop

The Scoutmaster *(Badge, Green on Silver)*

The Scout Troop normally consists of 4 Patrols of not over eight boys each. Its leader is the Scoutmaster (a citizen of the U. S. at least 21 years of age). He is commissioned



Scoutmaster at work

by the National Council upon the recommendation of the local authorities, as a man of good character. He holds the most important position in the Scout Movement! He is a volunteer worker, serving without pay, assisted in his

work by one or more assistant Scoutmasters.

The Scoutmaster is responsible to his Troop Committee which represents the institution which sponsors the Troop, provides a meeting place, and so on.

Assistant Scoutmaster *(Badge, Green on Gold)*

Each Troop has one or more Assistant Scoutmasters who are commissioned annually by the National Council of the Boy Scouts of America upon the recommendation of the Scoutmaster and the Troop Committee.



Assistant Scoutmasters must be at least eighteen years of age and are often selected and promoted because of their experience as members of Troops, and proficiency in Scouting. The Assistant Scoutmaster performs such duties as may be assigned by the Scoutmaster.



Junior Assistant Scoutmaster (Gold Color Badge on three green bars.)

Local Councils may, upon the recommendation of the Scoutmaster or the troop *organization*, issue warrants as Junior Assistant Scoutmasters to First Class Scouts who are sixteen years of age or over. Warrants may also be issued by the Department of Troops not under Councils.

This new optional rank may be used as follows:

1. To provide for Assistant Scoutmaster service to the Scoutmaster in cases where there is no Assistant Scoutmaster and where effective service can be rendered by a First Class Scout under eighteen years of age. In such case, the Junior Assistant Scoutmaster is the next ranking officer to the Scoutmaster.



2. Where there are already one or more commissioned Assistant Scoutmasters having specified, assigned duties involving executive responsibility and who need further assistance. In such case the Junior Assistant Scoutmaster is next in rank to the Assistant Scoutmaster. His duties should be clearly defined.

3. The rank of Junior Assistant Scoutmaster is also available for the purpose of holding the interest of First Class Scouts, sixteen years of age or over, as a special group serving as expert instructors or in other service to the Troop.

The rank of Junior Assistant Scoutmaster shall not, except as in Classes (1) and (2) above, outrank that of the Senior Patrol Leader, and nothing herein stated shall be construed as in any way modifying the Patrol organization or the rank of Senior Patrol Leader or his duties as Troop Leader.

Troop Committee *(Layman's Badge, Colors Gold on Blue)*

Each chartered Troop of Boy Scouts of America shall be under the supervision of a Troop or boys' work Committee, consisting of three or more male citizens of the United



States, twenty-one years or age or over, selected by the institution with which the Troop is connected or, in the case of an independent Troop, by those who make application for the Troop Charter, one of whom shall act as chairman.

If for any reason it becomes necessary for the Scoutmaster to discontinue to serve, the Troop Committee assumes control of the Troop and all its property, until a suitable successor receives his commission from the National Council.

The members of a Troop owe to the Institution:

1. Careful use of its property.
 2. Consideration as to noise.
 3. All possible "Good Turns" to the institution and its members.
- This produces the essential good feeling.

Back of every Troop are:

1. The Local Council of the Boy Scouts of America.
2. The local church, school or other institution, sponsoring the Troop.

The officers of a Troop are:

1. The Chairman of the Troop Committee and his Committee.
2. The Scoutmaster and the Assistant Scoutmasters and Junior Assistant Scoutmasters.
3. The Senior Patrol Leader and the Patrol Leaders.
4. The Scout Scribe.

Senior Patrol Leader *(Silver Badge on two and a half green bars)*

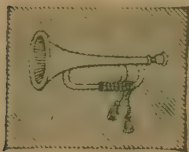
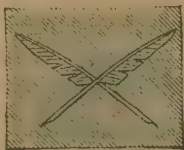
The office of Senior Patrol Leader is an optional post.

The Senior Patrol Leader must be a First Class Scout and should be chosen for strong character qualifications, proficiency in Scouting and marked ability in leadership. When the Troop consists of two Patrols or less, he is a regular Patrol Leader, but for Troops of more than two Patrols, he may be a Troop officer not attached to a Patrol.

The Senior Patrol Leader assists in Scout instruction and in the preparation for and conduct of Troop and Patrol camps and hikes. He may preside at Troop meetings but may not undertake full responsibility for hikes and camps which require adult leadership. He performs such administrative and executive duties as are assigned him by his Scoutmaster. He ranks in the Troop next to the Assistant Scoutmaster. (Exception see page 89.)

Scout Scribe

Every Troop from time to time elects or details one of its members to act as Scout Scribe or Troop secretary. This honor should be given to a boy who is proficient in Scouting and is capable of keeping the necessary Troop records under the supervision of the Scoutmaster or one of his assistants. The Scout Scribe furnishes the local



Scout Headquarters or Scout papers, and the Official Magazines of the National Council with items of interest about Scouting activities of his Troop from time to time. He makes out an annual report to be sent to the Local and

National Councils and performs such other duties as the Scoutmaster may direct.

Scout Bugler

A Troop may select or urge one of its members to master the Scout bugle so as to properly give the various Troop calls, Flag respects, etc.



Troop Registration

A Troop must register each year with the National Council. This is provided in the regulations under charter from the Congress of the United States. Fees for a minimum of eight Scouts and four leaders, i. e., Scoutmaster and three Troop Committeemen, are necessary to start a new Troop.

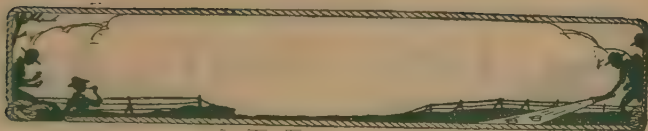
Registration entitles the Scout to his pocket Membership Certificate which serves as the official evidence of his membership and right to wear the Scout Uniform and Badges and to take part in Scouting activities.

Achievement Scouts

Scouts who are prevented by apparently permanent physical disability from passing all the required tests for Second and First Class Scouts are given an opportunity to progress further in Scout rank. These boys are known as Achievement Scouts. The Tenderfoot Requirements must be met by all handicapped Scouts. The Scout shall pass all the required Second and First Class Requirements of which he is capable, and shall devise and pass some tests within his physical capacity in place of the prescribed tests he is unable to pass as evidence of his Scout spirit and eagerness to develop his ability to the fullest. A duly registered physician shall certify to the permanency of the disability and the Scout's inability ever to pass the required tests.



Scouts who qualify in all possible Second Class tests receive Achievement Certificate No. 1. They will then be eligible to qualify for Certificate No. 2 under the same conditions. They may also qualify for any five of the Merit Badge subjects open to Second Class Scouts. This is also awarded to Scouts who have previously qualified as Second Class Scouts but who because of disability cannot pass the prescribed First Class Tests. Scouts who win Certificate and Badge No. 2 are then eligible to qualify for any Merit Badges within their physical capacity. They may not be awarded Star, Life or Eagle rank, but may be members of the Veteran Scout Association.



ASSOCIATE SCOUTS

Active members of a Troop of Boy Scouts ordinarily hold regular weekly meetings. This is the condition of membership which is insisted upon wherever possible. However, when in the judgment of the Scoutmaster and the Troop Committee it is impossible for a boy to maintain active membership in any Troop, arrangements may be made according to the facts in each case to enroll the boy as an Associate Member of the Troop upon the following conditions:

1. The Associate Scout obligates himself to observe the Scout Oath and Law and do his "Daily Good Turn" in the same way as an active member of the Troop.

2. He obligates himself to attend during the year such Troop meetings as are agreed upon at the time he is enrolled as an Associate Scout. In no case can this be less than one meeting a year, and it may be one a month or every meeting during the vacation period.

3. He agrees to do all in his power to advance himself in Scouting activities, according to the circumstances in his case. In case of removal to another community, arrangements may be made whereby an Associate Scout may have the cooperation of local Scout authorities in passing Second Class, First Class and Merit Badge Tests.

4. He agrees to hold himself as a Scout in readiness in case of any disaster or calamity requiring the services of his Troop, and in case of removal to another community to make known his presence and place of residence to the Scout authorities so that he may be available there for services in any emergency.

5. An Associate Scout pays his registration fees in the same manner as an active member of the Troop.



The Lone Scout

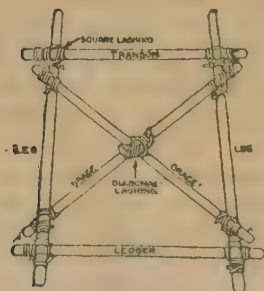
In case a boy cannot affiliate with a Troop as a regular member, he may upon application to the Local or National Council be enrolled as a Lone Scout, or as a member of a Farm or Home Patrol. This gives him the opportunity to carry out the same program as other Scouts.

A Lone Scout is a boy who follows the Scout Program as an individual under the leadership



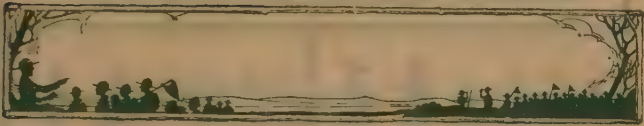
A SINGLE-LOCK BRIDGE
From "Scouting for Boys,"
Baden-Powell.

of an adult friend or Counselor. He carries on the program by correspondence, meets the same requirements as the boy in a Troop and has the advantages of the Scout Program. A number of Lone Scouts may organize a Tribe and have an adult leader, a chance to team and cooperate with other boys.



A TWO-LEGGED TRESTLE USED IN CON-
STRUCTING THE BRIDGE SHOWN ABOVE

A country boy needs Scouting, more than the city boy does, because, since he is further away from the advantages and educational opportunities offered by the city, he needs a program that will help him to get the most out of the out-of-doors, and will give him interesting and worth-while things to do.



Some Checking Points For a Good Troop

Here is a measuring stick to put on your Troop and Patrols which will give you an all-around idea of how near you come to possessing many desirable features of a good Troop.

1. Has the Troop a Patrol system as the basis of its work?
2. Do the Patrols hold meetings during the interim of the Troop meeting, preferably at the Scouts' homes?
3. Has the Troop a program for meeting and does it work the program? Do the Patrol Leaders and the Scoutmaster meet to plan it?
4. Can the Scribe present neat and accurate records and keep the Troop's registrations, etc., up to date?
5. Do boys leaving the Troop secure certificate of transfer to another Troop, or certificate of honorable discharge?
6. Does the Troop have frequent hikes?
7. Does your Troop take part in rallies and field meets?
8. Was your Troop at Camp? Summer? Over-night Camp? Week-end Camp?
9. Do the boys have uniforms and wear them on proper occasions? Does every Scout have and use his membership card?
10. Is the Oath and Law made vital by example of living it? 11. Do the Scouts respond for CIVIC "GOOD TURNS"? Do they practice individual "Good Turns"?
12. Do the individual members make progress through the Scout ranks?
13. Does the Troop Committeeman regularly visit the meetings? Have you a First Aid Instructor? Do the Scouts read "Boy's Life"? Have you at least one Assistant Scoutmaster for every two Patrols?
14. Does your Troop hold its members, or lose boys as fast as new ones join?



EVERY SCOUT SHOULD KNOW

ATTENTION



FORWARD
MARCH



AT EASE

*One foot in
place. No
talking.*



DOUBLE
TIME
MARCH



REST

*One foot in
place
Talking permitted*



QUICK TIME MARCH

*Same as Forward March.
Command used after
Double Time*

PARADE REST



MARK TIME
MARCH



EYES RIGHT



HALF STEP
MARCH



HAND SALUTE



RIGHT STEP
MARCH



RIGHT FACE



BACKWARD
MARCH



ABOUT FACE



HALT



FALL OUT

*Must remain
in vicinity*



EVERY TROOP SHOULD KNOW

FALL
IN



COUNT
OFF
(By Fours)



RIGHT
DRESS



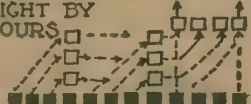
GUIDE
RIGHT



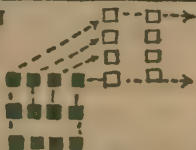
FOURS RIGHT MARCH



RIGHT BY
FOURS



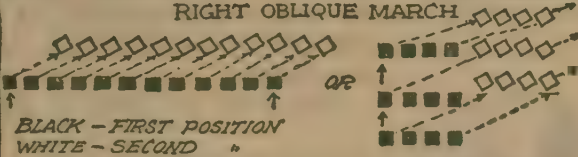
COLUMN
RIGHT
MARCH



COLUMN
HALF
RIGHT
MARCH



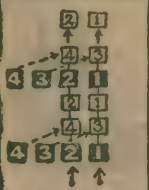
RIGHT OBLIQUE MARCH



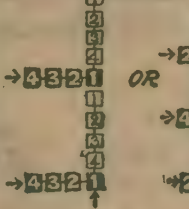
BY THE RIGHT FLANK MARCH



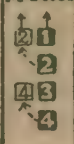
RIGHT BY
TWO'S MARCH



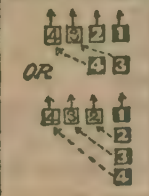
RIGHT BY FILE
MARCH



TWO'S
LEFT
FRONT
INTO
LINE
MARCH



FOURS LEFT
FRONT INTO
LINE MARCH





CHAPTER IV

Hiking



To hike over hills and through deep valleys, under big trees and along murmuring streams is one of life's real pleasures. Fine air, fine exercise, the fun of seeing old friends in the woods and the fun of meeting new friends—birds, bees, beetles, blossoms, brooks.

One can walk the woods for a half century and still find new joys therein.

And after the hike, a cool



plunge and then the call to mess !!!

For a Scout to enjoy his hiking he must know some of the things that veteran hikers have learned and have passed on to us. Indeed, adult leadership of hikes is a real safety measure.





1. Preparation

Clothing—enough to keep warm in while walking AND something MORE for use when quiet or in the cool of the evening.

Shoes—Hiking is best done in old, heavy soled, but soft-uppered shoes. Avoid “breaking-in” a new pair of shoes on a long hike. Be sure YOUR shoes are big enough! Canvas shoes are unsuited for hiking. They tend to weaken the arches.

Stockings—avoid light materials; and wear heavier woolen the year round for walking comfort. They air and ventilate the feet.

Food—food supply should be carefully worked out in advance, perchance with some little, light extra “iron-ration” to use in emergencies.

First Aid Kit—It is wise to carry a simple First Aid kit to meet emergencies for yourself or someone you may need to help.

Other Equipment—Knife, short rope, matches properly protected from moisture, perhaps a canteen with pure water. If going for overnight a pair of medium weight blan-



kets will bring comfort. A poncho should be carried as a protection against the rain and as a ground cloth under blankets at night.



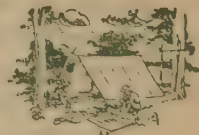
2. Sanitary Don'ts

Leave your food where ants or animals cannot molest it. Perishable foods will spoil if carried long. Drinking water should be used only after knowing its condition. A Scout is clean, so in meeting nature's needs he will see that all excrement is buried. When swimming be sure and have someone near who can rescue you in case of an emergency.

3. Respect Property



Scouts are often given privileges in great forest preserves and public and national parks, because they respect the property



and rights of the owners.

Trees must never be damaged; the Scout Axe is not a plaything—indeed many Councils allow only First Class Scouts to carry them.

Fires, should only be builded at proper distances from trees and grass AND must be **ABSOLUTELY PUT OUT** with water or sand and earth.

Fences, and all improvements, all live stock must be carefully protected for the farmer.

In passing houses, pass quickly without loud disturbances.

Policing Grounds, after Scouts have used a site they should carefully remove all the waste paper, frag-



ments of food, and similar waste and burn or bury
—LEAVING THE SITE CLEAN AND READY
FOR SOMEONE ELSE.

Do not trespass on railroad property nor enter private grounds or farms without special permission.

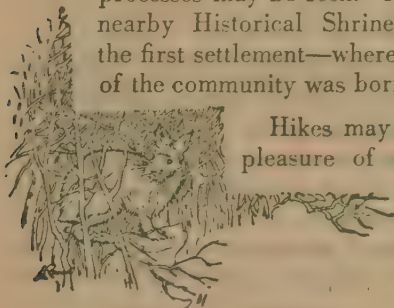
4. Remember

(a) A hike is not a speed event or a long distance endurance record. Soldiers on the march rarely average more than 15 miles a day.

(b) To secure your parents' permission before going, and if delayed beyond time of proposed return, try to get word to them.

5. Purpose

Hikes need not be to the woods. They may be to the museum, or to some near-by factory where interesting processes may be seen. Hikes are often made to nearby Historical Shrines—the oldest house,—the first settlement—where some distinguished son of the community was born, to some farm, etc.



SNOWSHOE RABBIT

Hikes may be made for the sheer pleasure of enjoying God's out-of-doors AND may also be used to PASS SCOUT TESTS or learn Scout outdoor craft.



CHAPTER V

How to Pass Scout Tests

Before taking the Scout tests, a few directions will be found helpful.

The Scout tests are carefully given because when a badge is put on a Scout by National authority, it is important to be sure he is worthy of it. Every Scout wants every other Scout to "BE PREPARED" thoroughly.

Tenderfoot Tests

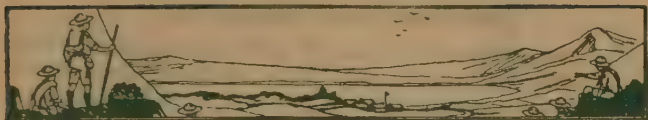
Tenderfoot tests are given by the Scoutmaster of the Troop in all communities, whether there is a Local Council or not. This does not, however, relieve the Troop Committee or the Local Council of the responsibility of maintaining standards in all requirements.



Second Class Tests



In communities where there are Local Councils, Second Class tests should be given by the Court of Honor or under the supervision of the Scout Executive or the Scout Commissioner or that of a duly registered deputy Commissioner designated by either for that purpose as may be determined locally.



Tests should be given near the place of meeting of the Troop or in the neighborhood when possible, so as to reduce the necessity for long travel to and from the tests. By special arrangement tests may be passed at the Scout Camp also.

SECTION VI, ARTICLE XV, BY-LAWS

"In all examinations, it should be borne in mind that the purpose of the tests and examinations is not to secure a mere technical compliance with requirements, but rather to ascertain the Scout's general knowledge of subjects studied, and practical rather than book knowledge is desired. A Scout should be prepared at any examination for a review covering previous tests given him as well as to demonstrate that he knows the Scout Oath and Law and is being guided thereby."

First Class Tests

In communities where there is a Local Council, the First Class test should be conducted by the Court of Honor under the personal supervision of the Scout Executive or the Scout Commissioner or a registered deputy assigned by either for that purpose.

This does not mean that the Scout Executive or Commissioner must personally burden himself with the actual conducting of tests, but it does mean that these officials should take seriously the task of supervision and the securing of properly qualified Examiners for Scout tests in order that the highest standards of work may be maintained.

Where there is no Local Council, First and Second Class tests should be given under the direction or in the presence of one or more members of the Troop Committee, or by special committee approved by the National Court of Honor, which has been selected to conduct examinations for Merit Badges.

Tenderfoot Scout Requirements

To become a Scout a boy must be at least twelve years of age. Upon demonstrating to the satisfaction of the Scoutmaster his ability to repeat the Scout Oath and Law in full and his thorough knowledge of their meaning, and upon meeting the following requirements, the boy formally subscribes to the Oath and Law and is registered as a Tenderfoot Scout, and is then entitled to wear the Tenderfoot Badge and the Official Uniform of the Boy Scouts of America.

1. Know the Scout Oath and Law, Motto, Sign, Salute, and significance of the Badge.
2. Know the composition and history of The Flag of the United States of America and the customary forms of respect due to it.
3. Tie the Square Knot and any eight of the following knots: Sheet Bend, Bowline, Fisherman's, Sheepshank, Slip, Clove Hitch, Timber Hitch, Two Half Hitches, Carrick Bend, Miller's Knot, Rope Halters, Pipe Hitch, Stevedore, Barrel Hitch, Girth Hitch, Binder Twine Bend, Lariat Loop, Hitching Tie.

Second Class Scout Requirements

A Tenderfoot Scout upon meeting the following requirements to the satisfaction of the proper local Scout Authorities, may be enrolled as a Second Class Scout, and is entitled to wear the Second Class Badge of the Boy Scouts of America:

1. At least one month's service as a Tenderfoot.
2. Know the general directions for First Aid, demonstrate treatment, including dressing, where necessary, for hemorrhage, fainting, shock, bruises, injuries in which the skin is broken, burns, sprains, and demonstrate with the triangle the following bandages: head, arm (sling), hand, foot and ankle bandages, eye and jaw bandages, (roller bandages may be substituted on arm and ankle); artificial respiration. The Scout may elect to demonstrate any five requirements on animals.
3. Elementary signaling: know the alphabet of the Semaphore Code; or the General Service (International Morse) Code; or the elementary signs of the Indian Sign Language Code; or the letters of the Manual Alphabet for the Deaf, either with one or two hands.
4. Track half a mile in twenty-five minutes; or if in town, describe satisfactorily the contents of one store window out of four observed for one minute each.
5. Go a mile in twelve minutes at Scout's Pace—about fifty steps running and fifty walking, alternately; or lay out, measure by the stride method and stake a four-acre tract of land.
6. Use properly knife and hatchet.
7. Prove ability to build a fire in the open, using not more than two matches; care for, and put it out.
8. Cook a quarter of a pound of meat and two potatoes in the open without any cooking utensils.
9. Earn and deposit at least one dollar in a public bank (premiums paid on life insurance are accepted, if earned); or earn, own, and raise some farm animal.

10. Know the sixteen principal points of the compass.
11. Demonstrate his practice of at least five rules of safety at home, or work, or school, or on the street, or road, or farm.
12. Furnish satisfactory evidence that he has put into practice in his daily life the principles of the Scout Oath and Law.

First Class Scout Requirements

A Second Class Scout, upon meeting the following requirements to the satisfaction of the proper local Scout Authorities, may be enrolled as a First Class Scout and is entitled to wear the First Class Badge of the Boy Scouts of America:

1. At least two months' service as a Second Class Scout.
2. Swim fifty yards. Jump overboard, feet first, into water slightly over his head, swim twenty-five yards, make a sharp turn about, and return to starting point.
3. Earn and deposit at least two dollars in a public bank (premiums paid on life insurance are accepted, if earned); or plant, raise and market a farm crop.
4. Send and receive a message by Semaphore Code, including conventional signs, thirty letters per minute; or by the General Service Code (International Morse), including conventional signs, sixteen letters per minute; or by the Indian Sign Language Code, thirty signs per minute; or send and receive a message by the Manual Alphabet for the Deaf, thirty signs per minute.
5. Make a round trip alone (or with another Scout) to a point at least seven miles away (fourteen miles in all), going on foot, or rowing boat, and write a satisfactory account of the trip and things observed.
6. Review Second Class First Aid Requirements. Describe methods of picnic prevention, what to do in case of fire, ice, electric and gas accidents; what to do in case of a mad dog bite, or snake bite. Demonstrate the treatment, including dressing where necessary, for a fracture, poisoning, apoplexy, heat exhaustion, sunstroke, frost bite and freezing; also demonstrate the treatment for sunburn, ivy poisoning, bee stings, nose-bleed, ear-ache, grit or cinder in the eye, stomach-ache; demonstrate transportation of the injured; demonstrate the triangular bandage on the head, eye, jaw, arm (sling), chest, fractured rib, hand, hip, knee, ankle and foot. (Roller bandages may be substituted on arm and ankle.) Demonstrate how to make and apply a tourniquet.
7. Prepare and cook satisfactorily, in the open, using camp cooking utensils, two of the following articles as may be directed: Eggs and bacon, hunter's stew, fish, fowl, game, pan-cakes, hoe-cake, biscuit, hard-tack or a "twist," baked on a stick, and give an exact statement of the cost of the materials used. Explain to another boy the methods followed.
8. Read a map correctly, and draw, from field notes made on the spot, an intelligible rough sketch map, indicating by their proper marks important buildings, roads, trolley lines, main landmarks, principal elevations, etc. Point out a compass direction without the help of the compass.
9. Use properly an axe for felling or trimming light timber; or produce an article of carpentry, cabinet-making, or metal work made by himself; or demonstrate repair of a decaying or damaged tree. Explain the method followed.
10. Judge distance, size, number, height, and weight within 25 per cent.
11. Describe fully from observation ten species of trees or plants, including poison ivy, by their bark, leaves, flowers, fruit and scent; or six species of wild birds, by their plumage, notes, tracks, and habits; or six species of native wild animals, by their form, color, call, tracks, and habits; find the North Star, and name and describe at least three constellations of stars.
12. Furnish satisfactory evidence that he has put into practice in his daily life the principles of the Scout Oath and Law.



Merit Badge Tests

Examinations for Merit Badges should be given by authority of the Court of Honor of the Local Council.

Troops not under a Local Council must form an Examining Committee before proceeding with Merit Badge examinations. This is accomplished through the Scoutmaster, and his Troop Committee. Application blanks may be had by applying to Troop Service Dept., 2 Park Avenue, New York City.

The local Court of Honor having satisfied itself that the applicant has met the requirements for a Merit Badge, must submit in writing to the Court of Honor of the National Council a certificate endorsed by the expert who conducted the examination, and certified to by the members of the local Court of Honor, showing that they had satisfactory proof that the Scout has actually passed the test, that he has personally appeared before the Court of Honor, and is entitled to receive the badge.

A Second Class Scout may earn five badges from a selected list. (Page 390.)

Honor Medals for Saving Life



Honor Medals are awarded by the National Court of Honor in recognition of unusual bravery and heroism displayed by Scouts in the actual saving of life. An Honor Medal is a National honor and is awarded only by the National Council in the following manner; where there is a Local Council the applicant must be personally examined by a local Court of Honor, and its recommendation, properly endorsed by the Local Council, forwarded on the blank form provided for this purpose to the National Court of Honor. Where

possible, the detailed statements of three reliable witnesses should be secured and attached to this form.

Where there is no Local Council, the same committee which has been authorized to conduct examinations for Merit Badges should conduct this investigation and make recommendation to the National Court of Honor.

The local Court of Honor or proper committee is urged to take the greatest care in substantiating the details of the claim in order that the National Court of Honor may have all the necessary data in judging the case and full justice may be done to the boy for whom application is being made.

Gold Honor Medals are awarded only in cases involving actual risk to the rescuer's life. Lesser degrees of life saving service are rewarded by Certificates for Heroism signed by the National Scout Commissioner. In all cases a Certificate will be issued to the life saver.

The Honor Medal may be awarded with crossed palms in exceptional cases where both heroism and exceptional achievement in the practice of Scout principles and training are shown.

Scholarship Awards

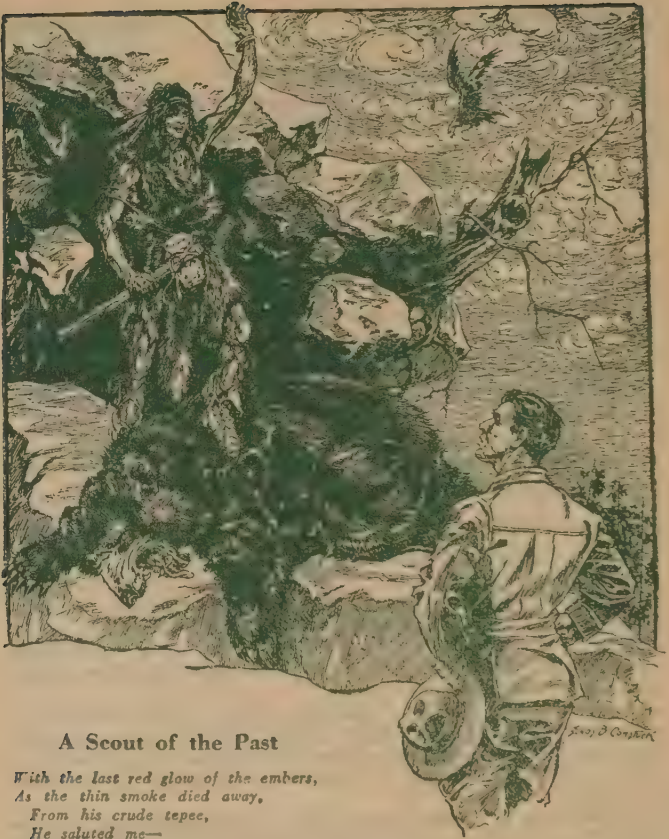
Scout training for citizenship is recognized by a large number of institutions offering scholarships to Scouts. Something like two hundred scholarships are available. Most of these require the Scout to be of Eagle Rank and have performed special civic service of a constructive character, as well as having filled the usual Scout requirements of character and service. Notable among these are the Harmon Foundation Awards.

Each year The Harmon Foundation awards \$100 each to fifty-two Eagle Scouts (four from each of the regions) for conspicuous service denoting character, perseverance or self-sacrifice. The money is to be used toward securing college or technical education.

Application is made through the Troop Committee to the Local Court of Honor and the National Court of Honor. Definite evidence must be submitted showing physical fitness, "Good Turns," leadership, and cooperation with others, as well as service.

Service Examples

One boy helped organize and conduct a playground for younger boys; another awakened interest in beautifying the station; another made a census of health conditions and helped improve them; others—campaign for wild life protection, need of humane society, establishing parent-teacher association, etc.



A Scout of the Past

*With the last red glow of the embers,
As the thin smoke died away,
From his crude tepee,
He saluted me—
A scout of a by-gone day.*

*His hair was as black as the raven;
His skin was a copper tint;
There was youth and grace
And a keen cut face,
And eyes with a piercing glint.*

*And over his brawny shoulders,
The pelt of a wolf was thrown,
With a girdle placed
in careless taste,
And held with a clasp of bone.*

*A bow, he had shaped from a sapling
And strung with a twisted thong—
And straight and true
His arrows flew—
Though the way to the mark was long.*

*He kindled a blaze with a flint spari
And then—as the flames leaped high—
Like a spirit thing—
He had taken wing—
He waved, and he called "goodby."*

Enos B. Comstock in "Boys' Life"

Part III

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1. At least one month's service as a Tenderfoot.
2. Know the general directions for First Aid; demonstrate treatment including dressing, where necessary, for hemorrhage, fainting, shock, bruises, burns, injuries in which the skin is broken, sprains, and demonstrate with the triangle the following bandages: head, arm (sling), hand, foot and ankle bandage; eye and jaw bandages (roller bandages may be substituted on arm and ankle); artificial respiration. The Scout may elect to demonstrate any five requirements on animals.
3. Elementary signaling: know the alphabet of the Semaphore Code; or the General Service (International Morse) Code; or the elementary signs of the Indian Sign Language Code; or the letters of the Manual Alphabet for the Deaf, either with one or two hands.
4. Track half mile in 25 minutes or if in town describe satisfactorily the contents of one store window out of 4 observed for 1 minute each.
5. Go a mile in 12 minutes at Scout's pace—about 50 steps running and 50 walking alternately; or lay out, measure by the stride method and stake a four acre tract of land.
6. Use properly knife and hatchet.
7. Prove ability to build a fire in the open, using not more than two matches, care for and put it out.
8. Cook a quarter of a pound of meat and two potatoes in the open, without any cooking utensils.
9. Earn and deposit at least one dollar in a public bank (premiums paid on life insurance are accepted, if earned); or earn, own and raise some farm animal.
10. Know the sixteen principal points of compass.
11. Demonstrate his practice of at least five rules of safety at home, or work, or school, or on the street, or road, or farm.
12. Furnish satisfactory evidence that he has put into practice in his daily life the principles of the Scout Oath and Law.



My Second Class Scout Score Board

Second Class Requirements

To become a Second Class Scout



Score Board

Name _____

FOR ME TO KNOW AND DO

- 1 One months Service
 Test passed _____ Date _____ Signed _____ Scoutmaster
- 2 First Aid (Second Class)
 Test passed _____ Date _____ Signed _____ Examiner
- 3 Elementary Signaling Code
 Test passed _____ Date _____ Signed _____ Examiner
- 4 Tracking
 Test passed _____ Date _____ Signed _____ Scoutmaster
- 5 Scout's Pace or Lay Out Field
 Test passed _____ Date _____ Signed _____ Scoutmaster
- 6 Use of Knife and Hatchet
 Test passed _____ Date _____ Signed _____ Scoutmaster
- 7 Fire Building
 Test passed _____ Date _____ Signed _____ Scoutmaster
- 8 Cooking
 Test passed _____ Date _____ Signed _____ Scoutmaster
- 9 Thrift Deposit or Raise Farm Animal
 Test passed _____ Date _____ Signed _____ Scoutmaster
- 10 The Compass
 Test passed _____ Date _____ Signed _____ Scoutmaster
- 11 Practice of Rules of Safety
 Test passed _____ Date _____ Signed _____ Scoutmaster
- 12 Living the Oath and Law
 Test passed _____ Date _____ Signed _____ Scoutmaster

Second Class Test completed _____ Date _____

Signed by Scoutmaster _____

THEN

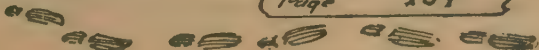
Head for

"FIRST CLASS" at once!



See
Page

194



CHAPTER I

How to Become a Second Class Scout



A Tenderfoot Scout may be advanced to Second Class Rank and wear the Second Class Badge, after meeting the following conditions to the satisfaction of the proper local Scout authorities:

Requirement No. 1

“At least one month’s service as a Tenderfoot.”

Before qualifying as a Second Class Scout, the Tenderfoot is required to PRACTICE Scouting for 30 days as a registered Tenderfoot.

This does not prevent him from passing Second Class Tests during that month, indeed it is very desirable that he should begin his progress at once. It simply means that he may not receive his Second Class Badge in less than one month. For a list of Merit Badge subjects open to Second Class Scouts, see page 390.

Trying earnestly to live the Oath and Law

This month enables him to become useful as a citizen with his “Good Turns”—also to be active in Troop and Patrol work and know how they are organized. It also affords him the chance to be **MORE trustworthy, loyal, helpful, friendly, courteous, kind, obedient, cheerful, thrifty, brave, clean and reverent** than he was a month before.

The Four Great Scout Duties

"On my honor, I will do my best—

- (1) To do MY DUTY TO GOD and MY COUNTRY, and to obey the Scout Law;**
- (2) To HELP OTHER PEOPLE at all times;**
- (3) To KEEP MYSELF physically strong, mentally awake and morally straight."**

The Scout Oath is a very clear statement of good citizenship. In it are the Four Great Duties of Life—I. Duty to God; II. Duty to Country; III. Duty to others; IV. Duty to self.

Duties are the foundation of all fair dealing. Every privilege in the world rests upon an equal responsibility. For everything we receive, there are things we must give.

We have the privilege of life—what is our duty as to its use? We have the privilege of citizenship in these United States—what obligation goes with that? We have friends—what duty does that place upon us? We have our own talents—what obligation do they carry for their development and use?

As we "try to do our best" to live this Scout Oath, let us think through these big duties:

I. DUTY TO GOD.

What is a Boy Scout's duty to God? What does a Boy Scout owe to the Infinite Creator of the Universe, the Source of life itself? The Church is the divinely appointed agency through which men are helped to keep close to God, in harmony of spirit. What is a Boy Scout's duty to his church?

The Scout Movement firmly insists that EVERY MAN (and every boy), to come into his largest self and largest usefulness, must have an active part in things religious and spiritual. Belief in God? Of course. Obedience to his basic ten commandments and the larger command to brotherhood? Of course—but MORE than these, the REAL MAN keeps himself in conscious harmony with



God and with God's other creatures, his fellow men AND in active participation with the Church.

In doing this, Scouts extend to every one of the other faiths, the same courtesy and consideration and respect for the other man's sacred things, that the Scout expects for his own. That is the spirit of Scouting in religiously-free America. "A Scout is reverent."

II. DUTY TO COUNTRY.

What is a Boy Scout's duty to his America? What does he owe to the land which gives him free education, things to enjoy and do and also the chance to be what he wants to be?

To obey her laws? Yes. To respect her institutions? Yes—but MORE, to as willingly **LIVE FOR AMERICA** as thousands of patriots have been eager to **DIE FOR AMERICA**. To **DIE** for one's country calls for supreme courage—but to **LIVE** aright, to work, to produce, to help, to save, to obey the nation's laws, to be **TRUSTWORTHY, LOYAL, HELPFUL, FRIENDLY, COURTEOUS, KIND, OBEDIENT, CHEERFUL, THRIFTY, BRAVE, CLEAN** and **REVERENT** day after day in little things calls for as much courage spread over longer time—but that is good citizenship.



III. DUTY TO OTHERS.



What is a Boy Scout's duty to other people? What do they have a right to expect of a Scout?

That he shall be friendly? Yes—all good citizens expect that from each other. That he shall be fair? Yes, of course—but MORE than that people know that the Scout promise to **DO A GOOD TURN DAILY** means that, like the ancient knight, the Scout helps others as he would want them to help him—but does it with no thought

of return—just for the pleasure of doing it as a good citizen.

In Washington, one day, a fine big sedan "stalled" on F. St. in the midst of Christmas shopping crowds. The little chauffeur got out to push the car across the street car tracks. He was too small. No one came to help—UNTIL a big, active, six-foot man stepped quickly across the street, planted himself behind the car and with a big push started the car over the tracks into the down grade beyond.

On that big man's coat was a Scout Committeeman's badge!

IV. DUTY TO SELF.



What is a Boy Scout's duty to himself? What does he owe to the immortal personality which HE IS?

He needs to GROW—in stature, in strength, in knowledge and wisdom, in favor with God and man—to GROW into greater value and usefulness and skill. The last words of the Scout Oath clearly point to a balanced duty to self—"Keep myself PHYSI-

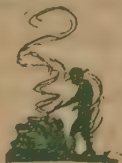
CALLY STRONG, MENTALLY AWAKE, and MORALLY STRAIGHT."

Only when he does that, can he have the full measure of fun, and happiness, and joy from living.

The Fire Maker's Desire

By JOHN COLLIER

*As fuel is brought to the fire
So I purpose to bring
My strength
My ambition
My heart's desire
My joy
And my sorrow
To the fire*



*Of Humankind;
For I will tend,
As my fathers have tended
And my father's fathers
Since time began,
The fire that is called—
The love of man for man—
The love of man for God.*

Used by permission of Camp Fire Girls of America

Requirement No. 2

(i) *“Know the general directions for First Aid; demonstrate treatment, including dressing, where necessary for (ii) hemorrhage, (iii) fainting, (iv) shock, (v) bruises, (vi) injuries in which the skin is broken, (vii) burns, (viii) sprains, (ix) and demonstrate with the triangle the following bandages: head, arm (sling), hand, foot and ankle bandages, eye and jaw bandages, (roller bandages may be substituted on arm and ankle); (x) artificial respiration. The Scout may elect to demonstrate any five requirements on animals.*”*



First Aid for Second Class Scouts

Approved by the American Red Cross

“BE PREPARED”

“First Aid” is emergency treatment until a physician can arrive. Exact knowledge may save human life, so study and practice until you **KNOW**!

In passing this test, the Scout is expected to DO and DEMONSTRATE rather than merely TELL about it.

First Aid Kit

Scouts will find it desirable to carry First Aid kits on hikes and trips. The kit may be “home-made” or pur-

• See page 133

chased. In it should be sterile gauze compress, bandage material, antiseptics like 2 per cent. mercurochrome or 3 per cent. iodine; carbolyzed vaseline or picric acid gauze for burns; and a small roll of adhesive tape. The Scout Neckerchief will serve as a triangular bandage.

(I) General Directions

Be Calm! Keep Cool. Think! See what is wrong.

WHAT TO DO

(1) Send for a doctor if the accident is at all serious.

(2) Keep patient comfortable. Reassure him. Keep crowd away. Be careful about moving him. Cover him if cold. Make head comfortable. Relieve pain where possible. If he vomits, turn head on one side (preferably right side), so mouth can drain. Do not do too much.

See What First Aid is Needed (if any)

(1) Look for spurting blood or heavy bleeding and check it by sterile compress bandaged firmly on the wound, or by pressure of finger on the skin over the blood vessel at the location of the pressure point, or very carefully by tourniquet if necessary. (See page 119.)

(2) Look for breathing—Be sure nothing tight interferes with breathing. (See page 128.)

(3) Cover all wounds with sterile compress and bandage. The fingers should not touch a wound. Never cover a wound with a dirty dressing. (See page 123.)

(4) Look for fractures—Never move a patient until splints have been applied. (See page 238.)

(5) Look at face—If flushed, should recline with feet slightly lower than head; if pale, with head slightly lower than feet. (See page 122.)

(6) **Look for shock:** It usually follows injury. To relieve, lower head of patient, apply blankets and wrapped hot-water bottles; and give aromatic spirits of ammonia, in water, if patient is conscious, one-half teaspoonful in a quarter of a glass of water. Warm patient inside and outside. (See page 122.)

(7) **If you know he has taken poison** make him vomit. (See page 241.)

(8) **Be careful of moving** patient until certain that no bones are broken—a simple fracture may become a compound! Also there may be internal injuries which moving may aggravate. (See page 237.)

(II) Hemorrhage, or Bleeding Wounds Without Severe Bleeding

These constitute the majority of all wounds.

First Aid

The pressure of a compress (pad) under a bandage will stop most bleeding if firmly held, or firmly bound into place.

For small wounds it is desirable to encourage enough bleeding to clean the wound before dressing.

Wounds Bleeding Freely

Indications

Bleeding may be (1) **ARTERIAL**—out of the arteries which carry the blood FROM the heart. Nature protected these by putting them deeply on the inside of limbs. If cut, the bleeding must be quickly checked, or the victim may bleed to death.

(2) **VENOUS** bleeding is from the veins which carry the blood back to the heart, and is a relatively smoother flow.

(3) **CAPILLARY** bleeding is the slow oozing from the very fine blood vessels.

(4) All three may be going on at once.



The treatment of bleeding is to save loss of blood and to so check the bleeding that nature can close up the broken vessels with blood clots. The "pressure points" where the flow can be cut off—are therefore very important. Thus the flow can be reduced until a bandage compress can be placed.

FIRST AID

Stop the Flow!

(1) **By a sterile compress** pressed firmly on the wound.

(2) **By hand pressure** on the part affected using your knowledge of pressure points.

(3) **Elevate the wounded part** if possible above the body level.

(4) **If it still persists—tie a square knot** in a handkerchief loosely around the limb affected, then insert hand upside down close to and above the wound, and **tighten by twisting your hand**.

[A stick may be used to tighten but it can easily be made so tight as to be injurious. This is less likely with the hand.]

This should be practiced by pairs of Scouts to see, for example, how little pressure is needed to stop the pulse in one's arm.

(5) If blood flow is thus cut off, **be sure to loosen** the hold every 15 or 20 minutes else the limb may be permanently injured. A clot should form in 10 minutes unless the wound is extremely large.

With severe bleeding keep patient quiet and lying on back. He will be thirsty—he may have cold water in small quantity.

Shock will usually be found also.

Stopping Bleeding by Pressure

For a Scout to "Be Prepared" to meet bleeding emergencies, he must know WHERE to stop severe bleeding. This can be understood from the figure. There are **THREE MAIN PIPE LINES** running from the pumping station, the heart—three on the right side and of course three to supply the left side.

- I. One UP to the head.
- II. One OUT to the arm.
- III. One DOWN to the leg.

I. Head

(a) Neck—shuts off entire head on that side.

(See No. 2 in figure.)

(b) Angle of Jaw—shuts off lower half of jaw.

(Just above No. 2.)

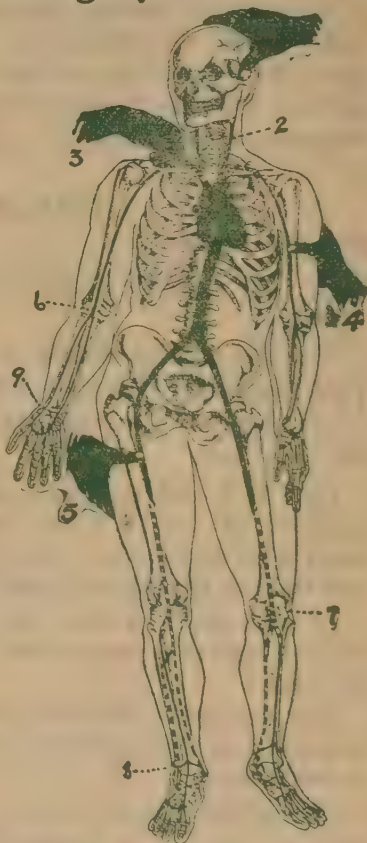
(c) Temple—shuts off upper half of head. (See No. 1.)

II. Arm

(a) Back of collar bone. (See No. 3.)

(b) Under arm. (Pad with arm pressure.)

(c) Inner side of upper arm. (See No. 4.)



Dotted Lines Indicate That the Arteries Lie on the Back Side

- (d) **Bend of elbow.** (Bent tightly.) (See No. 6.)
- (e) **Wrist. Base of thumb. Base of little finger.** (See No. 9.)
- (f) **Palm of hand.** (Gripping on any pad.)

III. Leg

These shut off everything **BELOW** the pressure point involved.

- (a) **Upper thigh.** (See No. 5.)
- (b) **Bend of knee.** (Back side—in the bend.) (No. 7.)
- (c) **Inner ankle.** (Back of ankle bone.)
- (d) **Outer ankle.** (Front of ankle bone.) (See No. 8.)
- (e) **Sole of foot.** (Push pad with foot against something solid.)

These shut off everything **BELOW** the point in question.



(III) Fainting

Definition.—Extreme weakness or unconsciousness due to stoppage of blood supply to the brain.

Symptoms.—Dizziness and unsteadiness on feet or unconsciousness and falling down. The fall is the chief danger in fainting. Face pale, pulse weak and rapid, cold sweat, breathing shallow and irregular. To prevent fainting, lower head as far as possible. When they fall, let them lie.

First Aid.—Give air—fainting usually occurs in overcrowded, overheated places, lay patient down with **head lower** than the rest of body, so blood will flow to head. Elevate the knees, and press the thighs back against the abdomen. **Keep Warm**—a little cold water may be sprinkled on face.

Stimulate.—Let him smell ammonia or smelling salts. When conscious again give hot drink, or better give $\frac{1}{2}$ teaspoonful of **aromatic spirits of ammonia** in $\frac{1}{3}$ glass of water.

Never try to give stimulant to unconscious person. Let patient rest—do not hurry him. Keep him warm. He should avoid needless physical exertion.

If you feel yourself fainting the following measures are preventive:

If *sitting*—double forward.

If *standing*—place arm tightly against chest, pull in, but push out with diaphragm thus forcing blood to head.

(IV) Shock

Definition.—Shock is a nervous depression which interferes with blood supply to the brain. It is caused by violent injury, particularly burns, fractures or heavy bleeding, or by strong emotions.

Symptoms.—Paleness—hands and nose cold and clammy—faintness or unconsciousness—breathing shallow and irregular—pulse feeble and rapid.

First Aid.—Shock may result from physical or mental injury. Keep patient quiet with head low, apply heat and reassure him. If shock is severe, get a doctor immediately for shock may result seriously.

(V) Bruises

Definition.—A bruise is a blow or injury which does not break the skin. (Where the skin is broken they are called wounds.)

Symptoms.—Pain if touched—swelling—discoloration.

First Aid.—Very hot or very cold applications. Apply alcohol, witch hazel, or liniment.

(VI) Injuries in which the skin is broken

Definition.—Such injuries are called wounds.

Symptoms.—Bleeding—exposed body tissue. The DANGERS are: (1) loss of blood (see page 119) and (2) infection from germs. NEVER TOUCH AN OPEN WOUND WITH HAND.

First Aid.—If bleeding freely—the wound will clean itself. Check bleeding; in most cases a sterile pad placed over the wound and bound in place will check the bleeding. Sterile gauze is in First Aid Kits. In emergencies a piece of cloth may be sterilized by painting with mercurochrome or iodine, or by boiling 5 to 15 minutes in hot water.

If not bleeding freely—clean wound without touching it, then paint mercurochrome lightly on and around the wound. Let this dry before covering with sterile pad gauze and bandaging.

(VII) Burns and Scalds

Definition.—Burns are injuries to skin and tissue caused by excessive dry heat. Scalds are similar injuries caused by moist heat.

Symptoms.—Surface blistered or skin broken. There are three degrees of burns: 1st degree, reddening, no blisters; 2nd degree, blister formation; 3rd degree, deeper, destruction of the tissues or charring. DANGER is from infection, so do not break blisters.

First Aid.—**Exclude the air** by a cloth (no cotton next to wound) on which is spread vaseline, carron oil (which is a mixture of linseed oil and lime water), olive oil, castor oil, fresh lard or cream, or prepared cold cream. Red Cross Picric Acid Gauze is probably the best dressing. Moisten it in water or in front of a steaming kettle spout.

If clothing sticks to a burn cut around it and leave it there.

Treat burns from alkalis or acids by washing off **as quickly as possible** and counteract the acids with baking soda or weak ammonia—the alkalis with vinegar or lemon juice.

Sunburn, as elsewhere noted, is quite like other burns.

(VIII) Sprains

Definition.—A sprain is a wrenching, stretching or tearing of ligaments surrounding a joint (like ankle or wrist). There may also be slight cracking or breaking of the bones.

Symptoms.—Pain, stiffness, swelling and discoloration (turns black and blue).

First Aid.—Elevate the joint to relieve the pressure and pain. Apply cloths wrung out of very hot or very cold water or better, alternate them every few minutes—this should be kept up for some hours. Good liniments or antiphlogistine, reduce pain. Shock may be present. A doctor should be called. If forced to use the sprained member, tight bandaging is necessary. After pain and

swelling have subsided, gentle massage may be helpful. Always rub toward the heart.

Strains

Definition.—A strain is overstretching a muscle.

Symptoms.—Pain, stiffness, lameness.

First Aid.—Rest. Rub with alcohol or spirits of ammonia or good liniment—rub toward heart. Apply heat.

IX—The Triangle Bandage

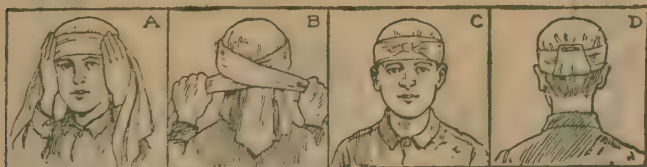
A triangle bandage may be made by taking an ordinary piece of cotton cloth, thirty-six inches square, and folding this square diagonally from corner to corner, thus making two triangles—cutting along the long side makes two triangular bandages. Triangles can be

improvised from a large handkerchief, a Scout's Neckertie, a piece of a shirt, napkin or towel.

To make a cravat bandage, fold an inch and one-half hem along the base, placing the apex or the point of the triangle underneath the hem. This bandage is again folded lengthwise

along a line midway between the base and the new top of the bandage. This operation is repeated until the desired width is attained. Remember triangles are to hold clean dressings on, not to put next to the wound.

HEAD



The head bandage is started with the triangle at the back—then is rolled up over the forehead as shown in the sketch.

Triangle Bandage

FOREHEAD



FOREHEAD OR TEMPLE



EYE



FOREHEAD OR JAW



JAW



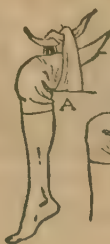
FOOT



CALF AND ANKLE



KNEE



THIGH AND SHOULDER



Triangle Bandage

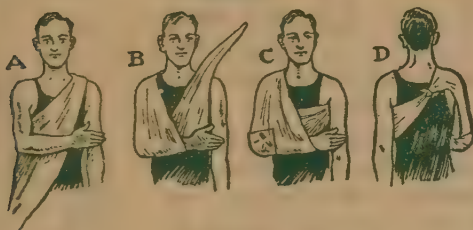
ARM



CHEST



SLINGS



HAND

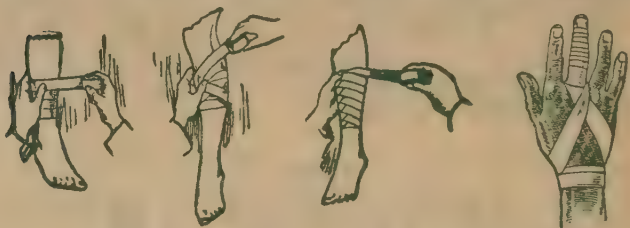


PALM



The Spiral Reverse Bandage

Take the roller in right hand with not more than four inches slack, make one or two complete circular turns, then one spiral turn; place the thumb across the



last turn and fold the bandage down (without any pulling) and continue on around the part in the same direction. This bandage, when finished, resembles the leaves on an ear of corn as one husk lies over another.

This will fit on any limb where the size changes, leg or arm.



(X) Artificial Respiration WHEN NEEDED

If a person is breathing, artificial respiration is not needed. If breathing has stopped due to water, gas, smoke or electrical accidents, or a blow in the abdomen, artificial respiration may restore it. Sometimes four hours without stopping have been necessary to re-start breathing.

POSITION OF SUBJECT

At place taken from water, gas, smoke or electrical contact lay the subject face downward on flat surface or with head slightly downward. APPLY PRESSURE IM-

MEDIATELY over the lower ribs for three seconds then release for two seconds. **BETWEEN** the first few pressures place the subject in the following position; turn head to one side, extend both arms above head and place one hand under the face with finger tips directly under the mouth to protect the mouth and nose from dirt.

POSITION OF OPERATOR

Kneel straddling subject's knee on the side toward which the face is turned. (See illustration.)

TO FIND LOCATION OF RIBS

Place the hands just below subject's shoulder blades, four inches apart, with palms turned forward and thumbs outward. **SCRAPE** edges of hands back toward pelvis until they stop.

Move weight of body slowly downward and forward for about three seconds—don't slide, don't bend arms.

Keep arms straight! The shoulders should be behind the hands, so that the pressure is exerted forward. **SNAP** hands off allowing the lungs to fill with air. Swing your body slowly backward to an upright position, thus relaxing the muscles of the back.

At the end of two seconds, again place the hands in position and apply pressure. This timing (three sec-



Prone Pressure Method

Fig. 1. Causing the patient to exhale by heavy pressure on the short or loose ribs "Out goes the water."

Fig. 2. The patient inhales when the pressure is withdrawn allowing the ribs to expand naturally. "In comes the air."

onds pressure and two seconds release) uses five seconds for one complete respiration, or twelve respirations per minute. This is fast enough and will allow you to continue for some time without exhaustion. If, however, it becomes necessary because of fatigue, or any other reason to have some one relieve you, be sure that the change is made without a break, and see that your successor uses the same timing that you have used without losing the rhythm.

To assist in properly timing these movements, repeat either silently or aloud during the period of pressure "out goes the bad air" then SNAP off hands and repeat during the period of release "in comes good" or count slowly 1, 2, 3 for pressure, and 4, 5 for release, one count for each second.

Organize your helpers while you are working. Look around, pick out two or three intelligent looking people and say "Will you get some others to join hands and keep the crowd back? Make a large circle—we must have air."

SUPPLEMENTARY TREATMENT

As soon as helpers arrive, put them to work. Send for a doctor, for warm bottles, or bricks, and for tea or coffee for stimulant. When you need rest, let one of your helpers take your place. One may clean patient's mouth, stimulating reflexes by moving tongue back and forth. Patient's clothing may be loosened, and his body and limbs rubbed toward the heart to stimulate circulation. Covering and heated articles may be applied. (Be careful to avoid burning patient.)

Aromatic Spirits of Ammonia may be held beneath the patient's nose at frequent intervals. All of this supplemental treatment is helpful but must not be allowed to interfere with, or interrupt for one second, the process of artificial respiration.

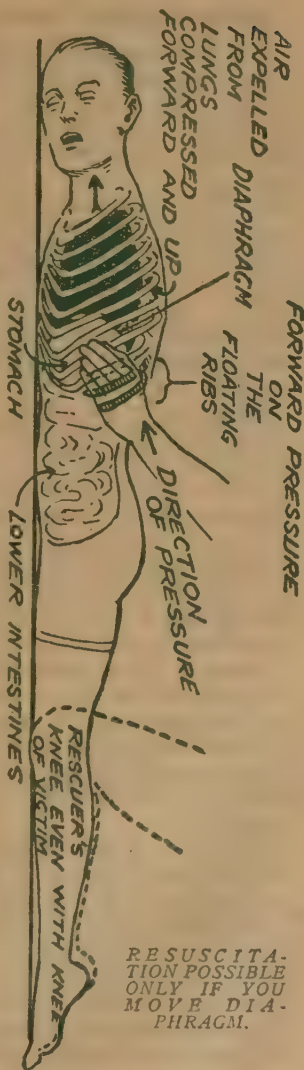
DO NOT QUIT!

Even if no immediate results are seen, do not give up until at least two hours' effort has been made.

REVIVING

WHEN SUBJECT BEGINS TO BREATHE AND CAN SWALLOW. Hot water, tea or coffee may be used as a stimulant. He should be well covered and surrounded with hot water bottles. The windows should be opened so that the patient may have plenty of air. Heart collapse or pneumonia often follow cases of suffocation. DON'T ALLOW PATIENT TO WALK OR OTHERWISE EXERT HIMSELF. After such an experience, a person requires medical attention.

(SKETCH SHOWS WHY PRESSURE MUST BE FORWARD IN ORDER TO AFFECT THE DIAPHRAGM.)



SOME SECOND CLASS FIRST AID PROBLEMS

1. A boy stumbles and falls, hitting his cheek bone. The cheek hurts and turns red or black and blue. Show what you would do and explain why.

Variations—A boy gets a black eye in a scrap. You smash your finger with a hammer. Your mother jams her arm in a door.

2. While frying bacon on a hike, a man spills hot grease on his hand. Demonstrate treatment and explain.

Variations—Persons rescued from fire, badly burned arms and chest, pale and half-unconscious. Little sister puts hand on hot iron. Boy spills boiling water on leg.

3. You find a man with his foot cut off by a trolley car. Blood is spurting. He is weak and pale. Show all that you would do and explain why.

Variations—On hike a boy gashes his leg badly with axe, and blood spurts out. A knife falls off pantry shelf and cuts your mother on the wrist so deeply that blood gushes out.

4. On a hike a visitor turns his ankle. It hurts and swells. The pain makes him feel weak and dizzy. Show what you would do.

Variations—Your mother turns her ankle in going upstairs. You fall and lame your wrist, scraping the palm of hand deeply.

5. Woman in stuffy "movie" falls forward unconscious. Show everything you would do and explain why.

Variation—Young woman cuts hand slightly. When she sees the blood she faints.

6. At home you cut your finger slightly. Show what you would do and explain why.

Variations—In sliding for a base, boy is spiked on leg. Man falls and scrapes forearm. At the beach a boy cuts foot on sharp shell.

7. You see a man hit by a truck and knocked to one side. You can find no injury but he is pale and unconscious. Show what you would do and tell why.

Variations—A boy is "knocked out" in friendly bout. A boy is hit on head by baseball and stunned. He is pale and unconscious. A little girl falls into a bon-fire. When she is rescued she is badly burned and unconscious.

8. Demonstrate all bandages mentioned in Section IX (pages 125 to 128) not used in above problems.

9. Demonstrate artificial respiration.

FIRST AID TO FARM ANIMALS

Approved by Dr. U. G. Houck

Bureau of Animal Industry, U. S. Dept. of Agriculture

Hemorrhage

Loss of blood is just as serious with farm animals as it is with human beings. It is stopped in precisely the same fashion. A clean pad or dressing pressed over the wound and bandaged firmly will check most cases. A tourniquet is theoretically possible, but the animal may not submit to it. Ends of large arteries may be twisted or ligated. Keep the animal quiet so as not to stimulate circulation.

	<i>Pulse rate</i> per minute	<i>Temperature</i> Degrees Fahrenheit	<i>Respiration</i> per minute
Horses	36-40	100.5° F.	8-16
Cattle	45-50	101.4° F.	10-30
Sheep	70-80	104.0° F.	12-30
Swine	70-80	103.0° F.	8-18
Dogs	90-100	101.4° F.	15-20

A horse's pulse can be located below the angle of the jaw and along its lower border, practically the same distance from the tip of the nose as the eye is distant therefrom.

With cattle the pulse is similarly located.

With sheep and hogs, it is on the inner region of the thigh; with dogs, on the inner side of the leg just above the knee.

Wounds Not Bleeding Freely

As with human beings, infection is the great danger in open wounds. Cleanliness is essential.

1. Bathe part with pure warm water that has been boiled and allowed to cool sufficiently.

2. Disinfect, using mercurochrome, iodine, 3% solution of carbolic acid, or creolin diluted 50 times (common coal-tar sheep dip).

3. Clean sterile dressing bandaged in place. Replace dressings when they become saturated with wound secretions.

4. Later, healing powder may be dusted on—iodoform, or boric acid, or equal parts of each and tannic acid.

Bruises and Sprains

Keep the animal as quiet as possible.

Rabies (*See page 236*)**Bandaging** (*See page 128*)

The roller bandage is excellent to hold animal wound dressings in place as it can be placed on at some distance on either side of the wound, thus making slipping less likely.

Rope Burns

For treatment of rope or other burns, see page 124.

Harness Injuries

Generally due to ill-fitting harness.

1. Pad properly and make to fit. This is important.
2. In spring, bathe shoulders of work horses each morning and night with cold water.
3. After the shoulders have been rubbed dry apply a lotion consisting of lead acetate, 4 ounces; zinc sulfate, 3 ounces; water, one gallon. Do not put on the collar until the shoulders are dry.

Galls

Give the animal rest. Dust the galls two or three times daily with a mixture of tannic acid, 1 ounce; boric acid, 4 ounces; and calomel, 2 ounces.

Colic

Horse colic (as with other animals) is quite akin to human stomach-ache. The most frequent causes are wrong food or too much water or too much exercise just before or just after meals.

Rest is essential. Blanket the animal if cold. Consult your veterinarian promptly.

Nail Pricks

Frequently horses step on nails which puncture the sole of the foot. Sudden lameness is a symptom. Lockjaw frequently results. The horny sole should be cut away for half an inch or more surrounding puncture to allow free drainage. Tincture of iodine, mercurchrome, 5% solution of carbolic acid or some other strong disinfectant should be applied to the wound. The dressing should consist of a thick layer of cotton, gauze or oakum saturated with the disinfectant and held in place by a bandage or otherwise.

Heat Stroke

Reduce the temperature by getting the animal in the shade, by pouring cold water over its body and applying cold applications to the head and the brain. It may drink cold water.

Fracture

While fractured bones of young animals heal quickly, the result is usually unsatisfactory unless the ends of the broken bone are placed in proper position promptly and a splint applied to hold them in position.

This is hard to do and it is harder yet to keep such animals quiet.

One may use padded wooden splints or plaster bandage (on top of a soft bandage), or leather of suitable thickness, made soft by soaking in warm water, and then shaped to the part.

With compound fractures (where skin is broken) the wound must be treated first (see page 133), bandaged and then watched for any sign of wound infection, in which case the splints must be removed long enough to treat the open wound.

Splinting is impractical in larger animals when fractures occur in bones covered by a thick layer of flesh.

Assisting Horse to Arise

Before attempting to assist to its feet a horse which has fallen on a slippery place, it should be unhitched; then ashes, sand, sacks or blankets, spread on the slippery surface to provide a safe footing. Raise the head and help get the front feet in position. Then push on the shoulder and lift by the tail. A strap or rope placed under the body just back of the forelegs may be useful.

Ice or Mire

Where a horse or cow has broken through ice into deep water, he can be pulled out, using halter and body rope, provided you get the front feet on top of good ice. Blankets should be spread on the ice to prevent the feet from slipping.

If the horse is exhausted a door may be used as a slide. Ropes attached to the submerged end of the door and passed around the body of the animal will enable you to pull out the animal on the door. Similar help for mired animal.

Handling Farm Animals

1. Remember that farm animals depend upon their owners for their existence.

2. Contented animals render the most efficient service.

3. A sick or injured animal should be allowed to rest and should receive proper treatment until it has recovered.

4. When caring for animals or treating them, go about your work quietly, don't shout or get excited or move so quickly as to startle them. Act and speak in a quiet, matter-of-fact manner that will allay fear and establish confidence.

5. Don't show fear when handling animals even if you feel it.

6. Take reasonable precautions to avoid injury to yourself, as for instance, muzzle a strange dog before you attempt to give it medicine, or treat a wound. If a horse shows a disposition to be dangerous, a twitch may be used.

7. In applying means of restraint don't cause unnecessary pain. It is the last twist of the twitch that hurts most.

8. If a sick or injured animal insists on lying down, it should not be forced to arise or walk.

9. Be cautious in handling bulls—They should always be considered dangerous.

U. S. Bureau of Animal Industry

There are many animal parasites and many contagious diseases to which farm animals may be exposed. The Scout is urged to secure the proper pamphlets from the U. S. Bureau of Animal Industry, Washington, D. C., so he can "Be Prepared" to assist in avoiding and controlling them. This Bureau also has publications on the care and feeding of animals.





Requirement No. 3

“Elementary signaling: Know the alphabet of the Semaphore Code; or the General Service (International Morse) Code; or the elementary signs of the Indian Sign Language Code, or the letters of the Manual Alphabet for the Deaf, either with one, or two hands.”

Signaling

Codes Used in Scouting

Approved by Capt. W. S. Rumbough, U. S. Signal Corps.

Out in the woods where telephones and telegraph messengers are not to be had, some method of signaling is essential. If different parties are hunting for a lost person, for example, signaling enables them to work together—advise when found and so on.

In Scouting two systems are used—the General Service Code (International Morse) a dot and a dash system—**also the Semaphore Code.**

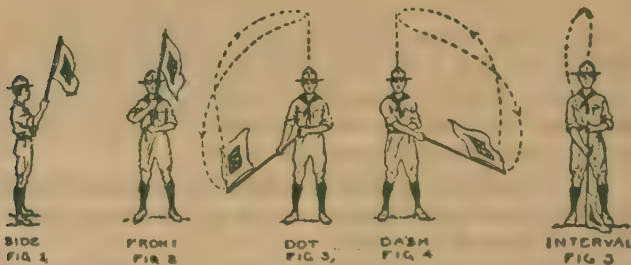
The General Service Code is the most generally applicable and the most widely used code. The equipment is also within the reach of all Scouts so far as expense is concerned. It can be used with hand flags by day, and with torches, lanterns, and flashlights by night. It is used with the heliograph, an instrument for flashing the sun's rays at desired intervals and with searchlights. It can be given by whistle, drum or bugle, and it is universally used for wireless telegraphy, and, except in this country, on the telegraph lines.

This test should be passed with actual Flags. It is not a speed test, but the Scout must know the alphabet. (Conventional signs are given under First Class. Page 215.)



Single Flag or Wigwag Signaling

For the flag used with the General Service Code there is one position and there are three motions. The position is with the flag held vertically, the signalman facing directly toward the station with which it is desired to communicate. The first motion (the dot) is to the right of the sender, and will embrace an arc of 90 degrees, starting with the vertical and returning to it, and will be made in a plane at right angles to the line connecting the two stations.



The second motion (the dash) is a similar motion to the left of the sender. The third motion (front) is downward directly in front of the sender and instantly returned upward to the first position. One front indicates the end of a word, two fronts, the end of a sentence, three fronts, the end of a message.

In sending the message by hand flag, place yourself in such a position that the observer can see the flag clearly. Avoid standing in a shadow or in such position that the flag will appear the same color as the background.

GENERAL SERVICE CODE

A — • —	B — • • • —	C — • — • —	D — • • —	E • — — —	F • • — • —
G — • — • —	H • • • • —	I • • — — —	J — • — • —	K — • — • —	L — • — • —
M — • — • —	N — • — • —	O — • — • —	P — • — • —	Q — • — • —	R — • — • —
S • • • —	T — • — • —	U • • — • —	V • • • —	W — • — • —	X — • — • —
Y — • — • —		Z — • — • —			
1 — • — • —	2 — • — • —	3 — • — • —	4 — • — • —	5 — • — • —	
6 — • — • —	7 — • — • —	8 — • — • —	9 — • — • —	0 — • — • —	

Wigwag Can Be Learned As A Game

One who has not yet mastered the code can record a message being sent to him, recording the dots as R (Right) and the dashes as L (Left) and the front drop motion as interval. For example:

RLRR * R * RL * RLR * LR * * L * RRRR * R * *
LRLR * LLL * LRR * R.

Such an observed message could be quickly interpreted if he had a copy of the General Service Code at hand. And by the same token he could spell out a slow message of reply himself.

The Scout is urged to **learn** the alphabet not by memorizing, A: dot, dash, etc.,—but by actually **MAKING** the **Right** and then **Left** swings which mean A.

Pair yourself with another Scout and send and receive simple letters that spell out words. This will be fun and before you realize it, you will begin to know the letters and better still will **know them** in actual sending and receiving.

Some Natural Grouping Memory Hints

€	E	•
ı	I	•••
§	S	•••
h	H	••••
	5	•••••

T	T	—
M	M	—
Δ	O	—
	9	—
	Zero O	—

A	A	•—
u	U	••—
v	V	••—
	4	••••—

N	N	—•
D	D	—••
B	B	—•••
	6	—••••

w	W	•—
j	J	•—
R	R	•—•
L	L	•—••
P	P	•—••

K	K	—•—
C	C	—•••
Y	Y	—•—
X	X	—••—

Q	Q	—••—
F	F	••—•

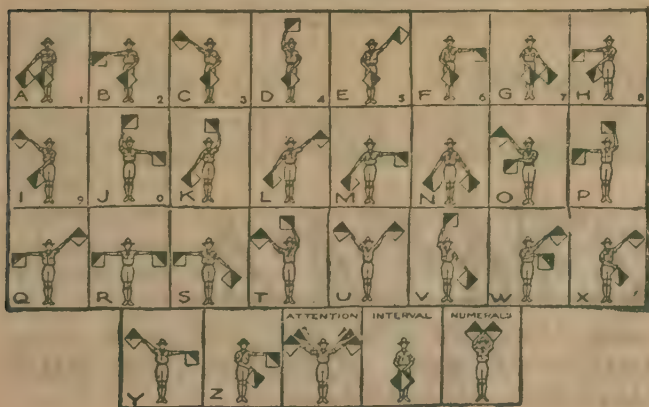
G	G	—•••
Z	Z	—•••

Signaling by Hand Flags with Two-arm Semaphore Code

Hand flags, on account of their small range are of limited application, and are chiefly serviceable for use within organizations, within fixed positions, or for incidental signaling. The range with flags of the usual size is of course dependent upon light and background, but is seldom more than one mile with the naked eye. This system of signaling has been highly developed and on account of its rapidity and simplicity should be familiar to all Scouts. It is limited to visual signaling work and not adapted to general signaling as is the General Service Code. It will be found useful under many circumstances and is adapted to special work when rapid communication for short distances is needed. This method is also used to advantage for interior signaling.

The Semaphore hand flags for service use are 18 in. square, divided diagonally into two parts, one of red and the other white; the staffs are 24 inches long.

THE SEMAPHORE CODE





Suggestions for Practice

To learn the semaphore alphabet, the Scout should **MAKE** every letter as he reads it. Practice every chance you get. If possible practice with another Scout—this gives double practice—both in sending and receiving.

FIRST PART

The letters A to G are made clockwise with one flag, and with the other flag at the Bottom or "Interval" position.



Practice them forwards and backwards.

THEN, make all possible words out of these letters, CAB, BAD, BAG, GAB, BED, FED, DEAF, BEEF, etc.

Master these letters before going on.

SECOND PART

H to N (except J) proceeds like a clock, with one flag in lower right position. Practice words reviewing letters A—G,



then make these new letters H to N.

Practice words HAM, MAN, HAIL, MAIL, NAIL, FAIL, BAIL, GALE, HALE, MALE, DALE, LAID, FADE, MADE, MAID, HILL, MILL, FILL, etc.

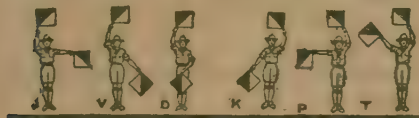
THIRD PART

These letters are made with the right hand in the 9 o'clock position straight out from body. Practice as before making new words, PAIR, QUAIL, RAN, SEND, SHARP, etc.



FOURTH PART

This J V D—K P T group are all made with one flag above the head. They are the bent arm group. The list contains three new letters. PRACTICE!



FIFTH PART

The U R N group is easy to remember as the letters are made with both arms in the same position.



SIXTH PART

There are 10 pairs of doubles or opposites as shown by the accompanying paired sets.



Indian Sign Language Code

(Elementary Signs)

I or Me	You, Him, He, or Her.	Yes	No
Come	Go	Walk	Bring
Take	Run	With	Day
Night	Sun	Moon	Hungry
Eat	Drink	Sleep	Water
Talk	Friend	Man	Woman

From "Universal Indian Sign Language". by William Tomkins.

- I.** With right thumb touch center of breast.
- YOU, HIM, HE, or HER.** Point right index finger.
- YES** (meaning: bowing the head and body). Use right hand.
- NO.** Hold extended flat right hand, back up, in front of body, fingers pointing to left and front; swing the hand to right and front while turning hand.
- COME.** Extend right forefinger and sweep same toward face.
- GO.** Hold flat right hand in front of body, back to right, pointing front and downwards; move hand to front, and by wrist action, raise fingers to front and upwards.
- WALK** (motion of feet). Hold flat hands in front of body equally advanced; move hands alternately to front, upwards and downwards describing an oval; like treading water. For an animal, close the hands same motions as above.
- BRING.** Move the right hand well in front of body, index extended, then draw hand towards body, curving index finger.
- TAKE.** Push the right forefinger well out in front, to right of body, pull hand quickly towards body curving index finger.
- RUN** (to). Make signs for **WALK** and **FAST**.
- WITH.** Hold flat left hand, back to left, in front; bring right index against left palm.
- DAY** (earth, uncovered). Hold level flat hands, backs up, in front of face, 4 in. apart; sweep hands up and out in curve, ending opposite shoulders, palms up.
- NIGHT** (earth covered over). Hands 10 inches apart, backs up, right hand little higher. Cross.
- SUN.** Form, with index and thumb of right hand, an incomplete circle, space of one inch between tips; hand towards east; move in curve across the sky to west. Also used to denote the time of day. (Right hand held towards left indicates eastward).
- MOON** (night sun). Sign for **NIGHT**; then quarter moon, and hold it up in line of vision.
- HUNGRY** (meaning: cuts one in two). Move to right and left.
- EAT.** Right hand, pass tips of fingers downward past mouth two or three times.
- DRINK** (meaning: drinking from the curved right hand). Carry to mouth from above downwards.
- SLEEP.** Made to right. Hands six inches apart.
- WATER** (meaning: drinking out of palm of hand).
- TALK** (meaning: throwing words out). For "little talk," index finger is snapped forward. For Council—as shown.
- FRIEND** (meaning: brothers growing up together). Southern Indians make sign of shaking own hands.
- MAN.** Elevate the right index, back out, in front of face.

Indian Sign Language Code

(Elementary Signs)

 Boy	 Girl	 (Wolf) Scout	 Teepees
 Forest	 River	 Lake	 See Track: Sign for Wolf and point to ground. Trail: Sign for Track and See
 Boat	 Mountain	 Why When Where How Question	 Try
 Sick	 Rain	 Finished or End	 Water Sign for Water—then motion like washing hands. Wash
 Good	 Bad	NUMERALS I II III IV V VI VII VIII IX X 20 30 40 50 100	

—From "Universal Indian Sign Language" by William Tompkins.

WOMAN (combing the hair). Right hand on right side.

BOY (GIRL) Make sign **MAN (WOMAN)**; bring hand down on right side to indicate height.

SCOUT. Push right hand slightly upward.

CAMP. Make the sign for **TEPEE**. Then with arms held horizontal in front form with thumbs and indexes an incomplete circle, tips 1 inch apart. Lower the hands briskly few inches.

FOREST. Sign shown is for **TREES**, extend right arm to right and front; then add **MANY**. (See page 222.)

RIVER (meaning: water flowing). Make sign for water, then move right hand to left of face, height of neck, index extended pointing left, move hand to right until opposite right shoulder.

LAKE (meaning: water and shape). Make sign for **WATER**; then with thumbs and index fingers make an incomplete horizontal circle with space of one inch between tips; then swing wrists together, tips of indexes apart.

TRAIL (to). Make the signs for **TRACK** and **LOOK** or **SEE**.

BOAT. Hollow hands in shape of boat. Push out.

MOUNTAIN. Push up the closed hand; then the sign for **HARD**.

QUESTION. Hold open hand, palm outwards, at height of shoulders, fingers and thumb extended; turn the hand 2 or 3 times.

TRY. Make motion like push or effort.

SICK. Hold extended hands in front of body; wave them out and in, two or three times, to denote throbbing.

RAIN (meaning: falling from clouds). Start in front of head. Repeat motion twice, slowly.

END (meaning: cut off). With right flat hand strike down past finger tips of left hand.

GOOD (meaning: level with heart). Flat, right hand, back up, in front of and close to left breast, pointing to left; move hand briskly well out, to front and to right, keeping it horizontal.

BAD (meaning: throw away). Right fist held near breast, throw out and down to right, opening hand while doing so.

COUNTING. The system of tens is universally used by our Indians in enumeration. In counting from one to ten, the usual way is to hold the closed right hand in front, the back towards and about height of shoulder, edges of hand pointing up.

For twenty, open and close both hands twice.

Many tribes indicate a number of tens by first making the sign for ten, then hold extended left hand horizontally in front of body, and draw the tip of extended right index from base over the back of each finger to its tip, each motion of this kind representing ten and going as far as fifty; then holding the right hand in similar manner, mark the back of its thumb and fingers with tip of left index to indicate from sixty to one hundred.

For counting hundreds, hold up both hands with both thumbs touching, hands held near right shoulder; then swing in a circle across to left and downwards.

A number of hundreds are counted on backs of hands same as in counting tens, first indicating that you are now dealing with hundreds.



Requirement No. 4

“Track a half mile in twenty-five minutes; or if in town, describe satisfactorily the contents of one store window out of four observed for one minute each.”

Tracking Test (An Individual Test).

Tracking is great fun for Scouts and it is also very useful. Time and again Scouts have helped themselves out of awkward predicaments by their ability to recognize tracks and make the proper deductions from them. Two methods are employed in making this test. In the first the Scoutmaster with the candidate goes to the woods or wooded country. A search is made and if a suitable trail is found the Scout is asked to follow it, the Scoutmaster estimating the distances covered and keeping track by watch of the time elapsed. As it is difficult near a big city to find a trail that extends far enough, the Scoutmaster has recourse to another method. The Scoutmaster starts in advance and lays a trail by any one of these three methods.

MINK

COTTON-
TAIL

1. Using corn, small bits of paper, rice or similar material.

2. By placing on his foot some design in nails or spikes by which the Scout can trail him.

3. By laying a trail using the signs shown in the chapter on Signs, Symbols, etc. (page 155).

More enjoyment can be had from following the trail of an animal. Domestic animals, such as a cat or dog, leave very good trails when snow covers the ground. To follow a dog through the woods when a light tracking snow is on is not only lots of fun but often leads to interesting spots that would otherwise not be observed. Wild animals do not often frequent the paths and trails made by man, and a dog will smell these out and follow them for great distances.

RACCOON

GRAY
SQUIRREL

Observation Test (Rarely Used).

There are some Scouts who are so unfortunate as to live in a city where it is impossible to do any tracking, real or otherwise. It is for them that this substitution of an observation test was authorized. To fulfill this requirement a Scout goes with his Scoutmaster to some prominent business thoroughfare. The Scoutmaster will pick out four different store windows and allow the Scout to study the contents of each for a period of one minute. After all four windows have been observed the Scout and his Examiner go to some place away from the avenue and the Scout will describe the contents of any



RAT TRACK IN SAND

one of the four windows that the Examiner may request. Four types of stores may be chosen, such as drug store and dry goods store, hardware shop and toy store. To pass this test satisfactorily it is necessary for a Scout to spend some time at practice; he will be wasting his time if he thinks that he can take the test without previous preparation.

The following two articles deal with tracking and with trail marks and symbols.

Animal Tracking



TRACKING animals or human beings is one of the world's oldest games. In snow, in mud, sand, dust, cultivated ground, tracks can easily be observed.

As Uncle Dan Beard says: "Really, Scouts, trailing is applying Sherlock Holmes' methods to the woods; it is using observation, noting what you see around you and then reasoning out the cause.

"When you are walking through the woods, note everything. For instance, a pebble in your path shows the damp side up. It only takes a little common sense for you to reason that something has been along there before you and knocked that pebble over with its foot, otherwise the moist side would not be on top. If in a muddy place you find the track of a boy and the mud which is



OPOSSUM

spattered nearby is still wet, you know that that boy has been there recently. If the mud is dry, then some time has elapsed since the boy passed that way. If the grass and leaves of a small bush are brushed the wrong way, showing the under side of leaves or grasses, you will know that something has been along there before you.

"The more you know about nature the easier it is to decipher a trail. For instance, if you see by the leaves or grass that some animal has passed, and note high up on a tree some animal's hair, even a chump would know that that animal was a large animal and had hair on it. But it takes a woodsman to know what sort of an animal it was, because only woodsmen are familiar with



EASTERN
CHIPMUNK

the hair of the wild animals; it might have been a moose; it might have been a deer, or it might have been a bear. If the hair on the tree is low down on the trunk, the first guess would be that it was from a small animal. It may have been a rabbit, raccoon, mink, dog or cat. The more you know about a mink, the more you know about muskrats, wild cats, and bears, the better able you will be to read these signs.



BADGER



RAT

"There is no royal road to trailing. You must visit the woods, hit the trails, follow them out and reason them out to become an expert trailer.

“Take the Whiffle Poof and experiment with trailing. Next you can try following your dog or anybody’s dog. If you can follow a dog you can follow a wolf. If you can follow a wolf you can follow a fox, although a fox, as a rule, will try to lead you astray. If you can follow a cow, you can follow a moose.

“If you can follow a sheep, you can follow a deer, that is, all other things being equal. I do not intend to say that if you can follow a sheep’s tracks in the snow or on a dusty road that you can follow a deer’s tracks in the summer woods; but experiment on domestic animals and graduate on wild animals.

“In winter time nothing can move on the ground without leaving a tell-tale iron trail in the snow. That is the time you can find more joy in working out the problem than at any other time of the year.

“While writing this I took a trip to Pike County, Pennsylvania. The snow was waist deep in

the woods, but packed so tightly that animals as large as a lynx could walk over it without sinking, leaving their tracks very distinctly upon the surface. My camp is 116 miles from Headquarters at 2 Park Avenue, New York City, yet in driving down from my log house to the railroad station, a distance of four and a half miles, I saw



WOODCHUCK



A BEAVER'S TRAIL

FOX
TERRIER

MINK

one live deer, the fresh tracks of four others, the tracks of one Canadian lynx, two mink, one raccoon, one porcupine, numerous Molly Cotton-tails' tracks, four or five different tracks of the big white hare, innumerable fox tracks, ruffed grouse tracks, and hundreds of tracks of different field mice which could not be identified from our



BEAVER

position in the sleigh. I tell this to show the reader how many tracks may be found within a short distance of one of the largest cities in the world.

"Some of the mice and rats not only leave a trail of their feet, but also a trail of their tails. Brother fox will trot along the road and suddenly his trail will cease. Apparently he has taken wings and flown away, but he has really jumped, doubled up his track, and commenced again. He might not know that you are following his track, but he always suspects that some one is. He comes to the muskrat house; he wants to examine it. He goes around it in two or three circles, first to be sure that there are no trenches or 42 centimeter guns hid around or behind the muskrat house. Brother Fox is always suspicious and makes a fine trail to follow.



WEASEL

Heretofore, we have shown you diagrams of these tracks, more or less accurate, but the real animals make real



GRAY SQUIRREL

tracks which are always accurate. Go to nature and study them."

—Dan Beard

Classes of Tracks

From Leonard Rossell in Scout-mastership Notes (Jan., 1926).

"There are bears, porcupines, hares, rabbits, animals that walk on the flat of the foot.

"There are those that walk on the toes, such as cats and dogs.

"There are also cattle, horses, antelope, deer, goats, pigs that walk on the point of the hoof or the toe nail."

"These determine the detail of the individual track, but the arrangement of the track is due to something else.

"The usual appearance of any individual track is naturally due to the general shape of the animal which made it.

"To the **first** class belong those mammals whose length of body is in proportion to their height, such as the cow, dog, cat, deer, etc.

"The **second** class comprises animals whose hind legs are much longer than their front legs, such as rabbits, squirrels, etc.,



PORCUPINE



DOMESTIC CAT



OTTER



VIRGINIA DEER



MARTEN

their hind feet track in front of the front feet when running.

"The **third** class is composed of those animals whose legs are very short as compared with the length of the body, such as the marten, otter, weasel and mink.

"Group **four** includes those whose legs are very short in proportion to the length of the body (as in group three) but whose bodies, nevertheless, are thick and heavy, out of proportion—such as the beaver, badger, porcupine and skunk."

These suggestions will start the Scout into an attractive field of observation in which he will always find new interest.

(NOTE—The animal tracks in this article were reduced from drawings by Leonard Rossell. A fuller treatment will be found in *Tracks and Trails*, a book by the same author.)



Signs, Symbols and Trail Marks.

Daniel Carter Beard, National Scout Commissioner

When America was first discovered there was a blanket of forest extending from the Atlantic Ocean to the Mississippi River, with the exception of a few prairies in Indiana and Illinois. This whole section of the country was one dense, dark, gloomy forest. It was traversed by traces which we now call trails. These traces were first made by the big game animals, then followed by the Indians, then by the pioneer trappers and explorers, then by the settlers with their packhorses; after them came the wagons, and now the same trails are traveled by us all in the cars of the railway companies.

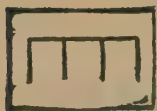


FIG. 1

A BAD
DOG
IN A
YARD

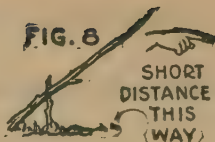


FIG. 8

SHORT
DISTANCE
THIS
WAY



FIG. 15

TURN TO
RIGHT



FIG. 2

DANGER

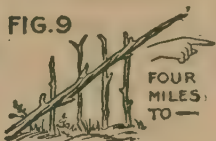


FIG. 9

FOUR
MILES
TO



FIG. 16

TURN TO
LEFT

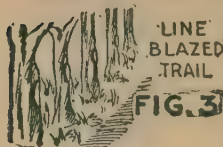


FIG. 3

LINE
BLAZED
TRAIL



FIG. 10

THIS
WAY



FIG. 17

(STICKS) THIS
WAY



FIG. 4

SPOT
TRAIL



FIG. 11

THIS IS
THE TRAIL

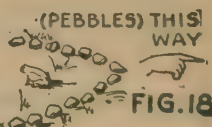


FIG. 18

(PEBBLES) THIS
WAY



FIG. 5

THE
DIRECTION
THE BUSH
IS BENT



FIG. 12

TURN TO
RIGHT

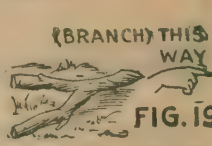


FIG. 19

(BRANCH) THIS
WAY



FIG. 6

SECTION



FIG. 13

TURN TO
LEFT



FIG. 20

(LOP-STICK)
ATTENTION

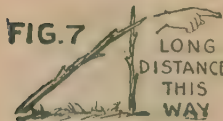


FIG. 7

LONG
DISTANCE
THIS
WAY



FIG. 14

GRASS
MARKING
TRAIL



FIG. 21

DANGER
HELP

NOTE: Figures 3, 4 and 5 represent methods used on the frontier where wood is nearly valueless. They should not be used by Scouts generally, as they injure the trees.

You can readily see that in a forest a man would use some method of marking a trace or trail, not only that he could find his way back, but that another fellow might follow him. This the woodsmen did by blazing the trees, that is, by chopping a piece of bark from a tree every once in a while as they traveled, so as to mark a path.



Of course, Scouts today when in the woods never blaze the trees because most of the Scout ranges are lands, where the trees must not be damaged.

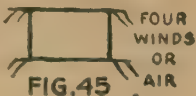
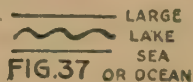
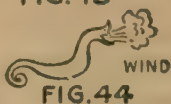
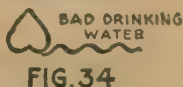
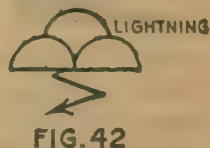
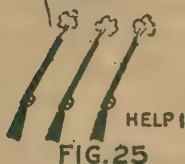
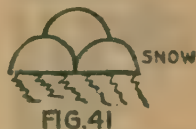
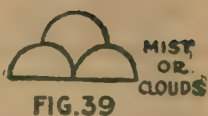
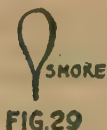
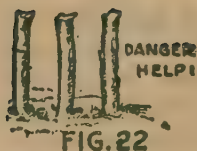
In towns, villages, and country, the Boy Scouts mark the trails by chalk marks; care of course, must be used to not mark up peoples fences or walks unduly. Not only can they mark a trail thus, but they can convey information to those following them. Bad dog (fig. 1). Danger is shown by a rectangle with a round dot in the center (fig. 2).

Signs of Alarm, Danger and Trouble

It is of vital importance to the whole outdoor world that a uniform system of signals should be adopted and understood to mean trouble or disaster and a call for help.

It should be recognized among all outdoor people, including hunters, explorers, military men, and Boy Scouts that **THREE** of anything stands for something serious, for a call for help, for a sign of danger. **THREE** might be called the **PAUL REVERE** among the signs, spreading





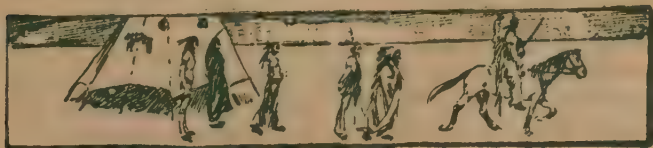
and giving the alarm. Two shots from a gun, for instance, may mean simply that a man has fired the right and left barrel of a shotgun, but three shots in succession would attract any hunter's or sportman's attention, and if three shots were again repeated in the same manner he would know that some one was in trouble.

Three of everything does, and must, have the same general meaning, a cry for succor, help, or alarm—the white man's custom of firing three shots as a call for help, the Apache's custom of three smokes as a sign of alarm, the mountaineer's custom of three stones, one on top of another, also three blazes on a tree, three tufts of grass, three short blasts on a steamboat whistle, full speed astern—all indicate trouble; consequently in this system of signs I have taken the liberty to ignore any apparent exceptions to the rule.

Whistle Signals

1. One long blast means "Silence," "Attention," "Look out for my next signal." Also used in approaching a station.
2. Two short blasts mean "all right."
3. A succession of long, slow blasts means "Go out," "Get farther away," or "Advance," "Extend," "Scatter."
4. A succession of short, sharp blasts means "Rally," "Come together," "Close in."
5. Three short blasts followed by one long one from the Scoutmaster calls up the Patrol Leaders—i. e., "Leaders, come here."
6. Three long blasts mean "Danger," "Alarm," "Look out."
7. A succession of alternating long and sharp blasts mean "Mess call," "Grub."

Any whistle signal should be instantly obeyed at the double—as fast as you can—no matter what other job you may be doing at the time.



Gesture Signals

Something is lost and a Scout is sent back for it. He picks up a handful of dust or other material and throws it in the air. This means "I have found it."



Found More or Faster Lie down or Dismount Go back Halt



What do you see? I see Nothing to fear Advance

Double fists of right hand moved vigorously up and down above the head is the command to move faster. Two hands extended in front of the body, arms bent, elbows at side of body, hands motioned downward by moving the forearm from the elbow is the command to lie down or dismount. Hand whirled around above the head in a horizontal position is the command to go back. Hand held up, palm out, is the command to halt. Palm of hand toward front of the face, all fingers spread, hand moved from right to left a few inches in front of eyes is the question; "What do you see?" Stick, staff, gun, or fishrod held horizontally by the two hands above the head tells the observer that what they are looking for is in sight. Both hands extended above the head with the palms to the front means that you have nothing to fear. Double fist, arm extended above the head, then brought down to a level with the shoulder, fist extended full length of the arm in front is the command to advance.

One Hand Manual Alphabet Used by the Deaf





Requirement No. 5

“Go a mile in twelve minutes at Scout’s Pace—about fifty steps running and fifty walking, alternately; or lay out, measure by the stride method and stake a four-acre tract of land.”

Scout’s Pace serves two useful purposes—one is to cover ground without being tired; the other use is to measure distance with considerable accuracy.

You have read of the “lope” of the wolf—the easy yet fairly rapid gait he can keep up indefinitely. Scout’s Pace is just such a gait.

The purpose is to practice until you can cover a mile in exactly twelve minutes, not varying more than fifteen seconds either way.

Take fifty steps (or 25) walking, then the same number at an even dog trot—then walking, then running again. The change of gait rests you.

Measure a mile using an automobile speedometer—then master Scout’s Pace.

Training

One way to “train” for Scout’s Pace is to measure off $1/12$ of a mile (440 feet) and practice covering that distance in **exactly one minute**—then gradually extend it to two, three such distances, until finally the mile can be done in 12 minutes.

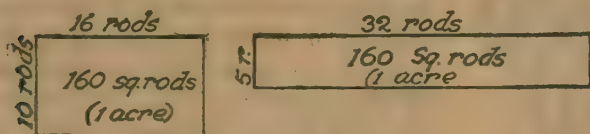
An individual test. Scout in passing it, is not allowed to use any timing devices.

"Or lay out, measure by the stride method, and stake a 4 acre tract of land."

One Acre is 160 Square Rods

A rod is $16\frac{1}{2}$ feet or three lengths of a $5\frac{1}{2}$ foot Scout staff or stick. The Scout should experiment with his pace to learn how many strides he must make to equal 1 or 2 rods. In laying out such a field, the Scout must sight toward some distant object and take precautions to make his lines straight and corners square. (90° .)

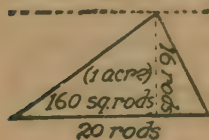
To lay out one acre, the area enclosed must be 160 square rods. If the frontage is 10 rds. depth must be 16 rds.



ONE ACRE RECTANGLES

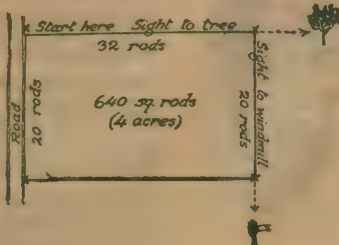
To lay out 4 acres, the area enclosed must be 640 square rods.

One Acre Triangles



If laid off as a triangle, the Scout must bear in mind that the triangle area is $\frac{1}{2}$ the base X the altitude.

However, in farm usage the triangular field is less common and less desirable because of time and loss in plowing and cultivation.



Requirement No. 6

“Use properly knife and hatchet.”

The knife and the hatchet or axe are about the most useful implements of a backwoodsman. In fact a good camper, hunter or mountaineer would be lost without them. The manner in which a camper handles his knife or axe is always a sure sign whether he knows anything about woodcraft or not. It is only the unskilled and untrained who brandish an open knife or carelessly handle unsheathed axes; experienced men are always extremely careful in their use. These two tools should be carried not as playthings but for serious work whenever they are required. It is important that the following advice about the proper use of the knife and axe be noted, if a Scout is to be prepared to prevent serious injury.

Scouts pride themselves because of their knowledge of handling an axe and a knife so as to prevent accidents, and such knowledge will commend them at once to woodsmen and campers.

KNIFE AND HATCHET

1. They should be properly taken care of and never used upon objects or for purposes that will dull or break them.



2. They should be handled in such a way as not to injure the user or any person nearby.

3. They should never be used to strip the bark off any tree or to disfigure other people's property by cutting initials thereon.

WHEN USING THE KNIFE

1. Whittle away from you, NOT towards you, to prevent injury.

2. Don't drive a knife into a stick by hammering on the back of it, and don't use the handle as a hammer.

3. Beware of wood with nails in it.

4. Keep the knife out of the fire.

5. Keep the blades clean; boil or scald the blades before cutting food.

6. Don't use the blade as a screw driver, or to pry things open with.

7. Don't carry an open knife in your hand.

8. Don't lay it on the ground when not using it, or keep it in a wet place.

9. Know how to sharpen the blades properly. A knife, if kept in good condition, is a most valuable and important tool.

WHEN USING THE AXE

1. Never chop in such a position that the axe will cut you if it slips.

2. Never chop through wood on a hard surface.

3. Never chop pine or hemlock knots with a sharp axe.

4. If you carry an axe on your shoulder, always have the edge outward from your neck, otherwise you might stumble and be killed.

5. Always muzzle the axe in traveling. Carry axe by grasping handle close to the axe head with blade down and outward.



Requirement No. 7

“Prove ability to build fire in the open using not more than two matches — care for and put it out.”

WHERE

Pick a dry place or on a rock—away from trees and cleared so that fire cannot spread to the grass or bushes.

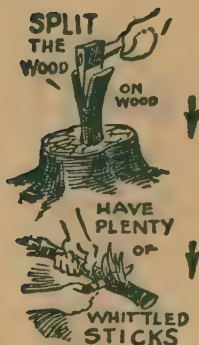
WHAT

Get dry twigs, or if in rain split open piece of log and get dry interior. Cut into long thin slivers.

Pile these with some slightly larger pieces on end into a cone or pyramid and light them below and on the windward side. No paper or dangerous kerosene may be used.

CARE

Especial care should be exercised to avoid spread of fire and upon leaving a fire **BE SURE** it is **OUT**. Plenty of water or sand or damp earth may be used—especially water, but **BE SURE IT'S OUT**.



PLACE THEM—

THIS WAY



WOODMAN FIRE



STONE FIRE PLACE



POTATO HOLE



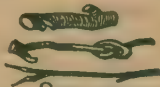
STAR OR INDIAN FIRE



DINGLE STICK



FIELD STOVE WITH STONE



POT HOOKS AND FORK.



COUNCIL FIRE

Requirement No. 8

"Cook a quarter of a pound of meat and two potatoes in the open without any cooking utensils."

In passing this test prepared meat may not be used.



The Cooking Fire is a Small Fire.

Cooking Meat

While there are many ways in which to cook meat and potatoes without the aid of cooking utensils of any kind, a most satisfactory method is the one described by Mr. James A. Wilder in his book on the PINE TREE PATROL. It is called "KABOB" and is cooked in the following manner: purchase the required quarter pound of meat and cut it into pieces the size of a half dollar. Procure a small straight branch and taste of the bark to be sure that it is not bitter. (If it is cast it aside and try again.) Sharpen the small end of the stick selected and impale the piece of meat on it as shown on page 168. After the fire has burned long enough to become "steady" with some coals, place the meat over



it and turn from time to time, salting it the while. Searing it first will produce a burn on the outside which will prevent the juices from dripping onto the fire and being lost. The length of time required for cooking depends upon the heat of the fire and the desire of the Scout as to whether he likes his food rare or well done. In plac-

ing the beef upon the stick always sharpen the small end and impale the meat from this side. On account of the thickness of the stick varying in diameter a piece of meat impaled from the large end will not cling fast and consequently will not turn when the stick is twisted in cooking. Slices of onions introduced between the squares of meat give it a delicious flavor. A word is necessary though, regarding the method of putting the slices of onion on the stick. Peel the outer skin from the onion and with a sharp pointed stick make a hole through it, then slice it at right angles to the above and you will be able to place them on the stick without splitting. Slice the onion first and it will be impossible to make the onion stay together after it has been pierced.

Cooking Potatoes

The safe way to cook potatoes is to use two fires. First dig out a hole larger than needed to hold the potatoes—line it with small stones if they are available. Build a fire in the hole to heat the stones. When this fire dies down—put in the potatoes, cover them with damp earth—then on top of this build an 18-inch criss-cross fire and let it burn down. Start these potatoes an hour before you want them and cook other parts of the meal on the same fires.

Requirement No. 9

“Earn and deposit at least One Dollar in a public bank. (Premiums paid on life insurance, if earned, are accepted.); or earn and raise some farm animal.”

Every Scout, to meet the spirit of the ninth law, should be thrifty. Business success and plenty in later life are closely related to savings. **EVERY SCOUT SHOULD BE A DEPOSITOR IN SOME BANK.**



The dollar covered by the requirement must be an **EARNED** dollar—not one that some one has given him. After school or during vacations, any boy can earn by cutting grass, delivering goods for merchants, collecting and selling old rubber and papers, addressing envelopes, cleaning automobiles, delivering or selling newspapers, growing garden, raising a calf or pig, or pen of poultry. The money should be left on deposit.

It is surprising how a relatively small sum of money mounts up. If a twelve-year-old boy puts \$3.64 in the bank each month and the interest is compounded at 4% by the age of 55 he will have \$5,000 in the bank.

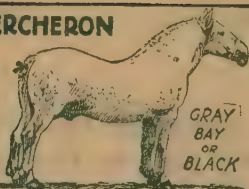
Amount Deposited Monthly at 4% Compound Interest to Produce the Amount in First Column

Amount You Want at age 55	YOUR PRESENT AGE										
	10	12	14	16	18	20	22	24	26	28	30
\$5,000	\$3.31	\$3.64	\$4.02	\$4.44	\$4.92	\$5.46	\$6.08	\$6.80	\$7.62	\$8.58	\$9.71
10,000	6.62	7.29	8.05	8.89	9.85	10.93	12.17	13.60	15.24	17.16	19.42
15,000	9.94	10.94	12.07	13.34	14.77	16.40	18.26	20.40	22.87	25.74	29.13
20,000	13.25	14.59	16.10	17.79	19.70	21.87	24.35	27.20	30.49	34.33	38.84
25,000	16.57	18.24	20.12	22.24	24.63	27.34	30.44	34.00	38.11	42.91	48.55
30,000	19.88	21.89	24.15	26.68	29.55	32.81	36.53	40.80	45.74	51.49	58.26
40,000	26.51	29.19	32.20	35.58	39.40	43.75	48.71	54.40	60.99	68.66	77.69
50,000	33.14	36.49	40.25	44.48	49.26	54.69	60.89	68.00	76.23	85.83	97.11

Many of our wealthy men of today can trace their fortunes to the modest deposits made when they were boys.

“A SCOUT IS THRIFTY”

PERCHERON

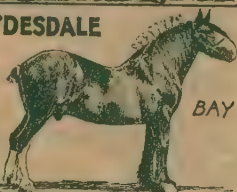


GRAY
BAY
OR
BLACK

HACKNEY



CLYDESDALE



BAY

RACE

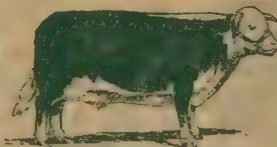


BROWN
AND
WHITE

HEREFORD BULL



HEREFORD COW



BEEF

BLACK

ABERDEEN-ANGUS BULL



ABERDEEN-ANGUS COW



BROWNISH

JERSEY BULL



JERSEY COW



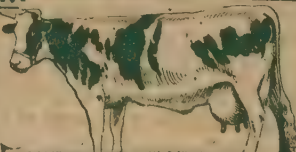
DAIRY

BLACK
AND
WHITE

HOLSTEIN BULL



HOLSTEIN COW



Janson



CHESTER WHITE [WHITE]



POLAND-CHINA [BLACK & WHITE]



DUROC-JERSEY [RED]



BERKSHIRE [BLACK & WHITE]



SHROPSHIRE



HAMPSHIRE



LINCOLN



RAMBOUILLET



**BARRED
PLYMOUTH
ROCK**



**RHODE
ISLAND
RED**



**WHITE
LEGHORN**



**LIGHT
BRAHMA**

AR. JANSON

Requirement No. 10

“Know the sixteen principal points of the Compass.”

THE MARINER'S COMPASS

Boxing the Compass consists in enumerating the points beginning with north and working around the circle as follows:

WEST

West by north
West, North-west
North-west by west
NORTH-WEST
North-west by north
North, North-west
North by west
NORTH

NORTH

North by east
North, North-east
North-east by north
NORTH-EAST
North-east by east
East, North-east
East by north



SOUTH

South by west
South, South-west
South-west by south
SOUTH-WEST
South-west by west
West, South-west
West by south

EAST

East by south
East, South-east
South-east by east
SOUTH-EAST
South-east by south
South South-east
South by east

The old point system has been discarded by the Navy and the degree method is now employed, the principal points of the compass being indicated in degree markings—North being 0; East, 90°; South, 180°; West, 270°; etc.

The points NORTH, EAST, SOUTH and WEST are the cardinal points of the compass.



Requirement No. 11

“Demonstrate his practice of at least five Rules of Safety at home, or work, or school, or on the street, or road, or farm.”

Prevention of Accidents

(By the National Safety Council)

The Fun of Adventure

Adventure is real fun! The pioneer boys whose adventures involved avoiding unfriendly Indians and animals—found their fun not in the danger involved as much as in the new experience and the care necessary to *avoid danger*. To have real fun, it is not necessary to risk one's life. In fact, all of our life is a great adventure and too big a thing to throw away in a moment of recklessness or thoughtlessness.



The few seconds saved by running in front of a street car may be expensive in time if crutches are the result. One *may* get past it but also one *may not*.

The speeding motorist *may* beat the train to the crossing and again he *may not*.

How foolish to take a chance that may easily maim *you* forever and ruin *your* opportunities for future fun and usefulness. And these opportunities may come at any moment, particularly if you are “prepared”. So safety is in the interest of more adventure.

Using Safety as a Guide

Suppose you like to play football. This certainly is a great game for any live, active fellow. It is full of thrills; a touchdown against great odds is very nearly an act of heroism. But this is not the whole story. Carefulness prevents fumbles as well as injuries. It saves scores as well as ribs.

In a word, the safe way is the right way.

Know the proper way of doing whatever you set out to do, know the game. Think, —then act.



“Be Prepared”—Avoid Carelessness

Because people do not control their actions, because they are thoughtless and reckless or because they are mentally lazy, 90,000 lives are now being sacrificed annually. These are called accidental deaths.

During the World War, when American losses abroad totalled 50,000 killed and 180,000 wounded, 128,000 men, women and children were accidentally killed in the United States and over 10,000,000 others were injured.



Here was an Expeditionary Force exposed to the most effective death-dealing engines of all times actually coming out better than a people pursuing the so-called peaceful “arts”.

The fatal accident figures for 1925 were divided as follows:

Street and Highway	27,000
Other Public	21,000
Home	19,000
Industrial	23,000

The first three classifications are those of most personal interest to a Scout, for he often comes in contact with the conditions under which they occur.

Causes of “accidental” deaths:

Burns and Scalds, including Fires	9,000
Falls	15,600
Drowning	7,000
Asphyxiation and Suffocation	4,000
Automobile	22,000
Railroads, excluding passengers of trains and automobiles, and employees	2,600

In a large central western state the number of automobile deaths yearly exceeds the total from diphtheria, typhoid fever, whooping cough, scarlet fever and measles.

The wages of Carelessness, you see, is death, or—perhaps—an injury which may ruin your opportunities for any more adventures.



Haste Makes Waste

Accident Prevention

These 90,000 fatalities a year, constitute a real problem. Every citizen owes America the "Good Turn" of helping save this loss of citizens. Everybody working together can do it, and the 90,000 annual deaths will begin to dwindle.

Of course, the Scouts can do a great work in connection with any concerted effort to reduce accidents, both by following the general rules themselves and persuading others with whom they come in contact to be safety actors and workers. Scouts will be eager to "be helpful to others" not as well equipped with strength and health.

Statistics show that children under 5 years of age and adults over 50 years old are most apt to be injured. These must depend largely upon others for protection.

Your chance and privilege, Scouts!

Safety At Home

Get the "picking up" habit, and keep it. Don't allow objects that may trip folk to remain on the floor, and, similarly, pick up small objects, such as pins and needles. Babies have an uncanny affection for these dangerous objects.



Supervise your baby brother and baby sister and all the youngsters. See that they are not allowed access to the medicine chest; don't allow them to climb on porch railings, ladders and furniture from which they may fall. Small children should never be left alone in a room with scalding water within reach; likewise, since many small children have been drowned in tubs of water, they should never be left alone in a room with a tub of water on the floor.

Teach the younger ones by your own example; remember that the desire to imitate is very strong in young children. It is up to you to encourage them in their safe and discourage them in their unsafe habits. So . . . don't play around fires, or play with matches, don't stand on rickety, obviously unsafe supports and avoid handling electric wiring or appliances about the house unnecessarily. Be particularly careful to avoid touching a lighting fixture while standing in water or while touching a water tap or pipe.

The Scout can and should be the representative of safety in his household.

An Orderly House is a Safe House

Disorder invites fire, so keep your house in order, for if you do not, there will be a bad fire some day. Keep all combustible materials, other than fuel for immediate use, away from the heating apparatus. Burn greasy or oily rags and papers immediately after using them, either in the stove or furnace or in a special rubbish burner away from buildings and fences. Make frequent inspections of closets, attics and other places where fires may start. See that gas jets or electric fixtures are not used as hooks on which to hang garments or towels.



Also keep the yard in order, free from broken glass, rusty wires and similar sources of danger.

Gas is a hazard, both in the house and garage. If you detect the odor of gas in your home and cannot at once locate the source—an open burner, say—get everyone out of the building, turn off the meter cock if you can reach it in safety, and notify the gas company.



**STEALING RIDES
OFTEN LOSES A
LIFE**

Carbon monoxide escapes from an automobile exhaust. Colorless and odorless, this deadly gas is difficult to detect. Running motors in garages with the doors closed cause many deaths from this peril.

Carbon monoxide may also result from incorrect operation of a gas burner, especially in an inadequately aired room. Have gas appliances inspected from time to time.

Learn to detect asphyxiation symptoms and what to do in such cases. (See page 234.)

Safety Upon the Streets

People sometimes say that the traffic problem is a purely modern affair. At best, this is only a half-truth. When Rome was a city of several million people, there was a big problem of this sort, and if you know any of the story-books of that time, you will remember cases of haughty senators and knights tearing through the streets in their fine chariots drawn by speedy blooded Arabian steeds and running down and killing pedestrians with impunity.

Of course, the pedestrians of the Roman Empire were mostly freedmen and slaves, folk of no social status.

There are plenty of people like those vicious senators and knights of old-time Rome, but pedestrians are no longer slaves, and they and theirs may seek redress for injury by legal process. But the pedestrians must keep the rules for street and road conduct, if they hope for fair treatment from the drivers. The Scout who knows the meaning of justice and co-operation will be willing to observe the following suggestions.

Always look both ways—left, then right—before crossing a street. Cross at the corners and at right angles, instead of diagonally. Await the policeman's signal or a green light—give the motorist his chance. Never run across the street; one false step may be your last. Of course, a true Scout need not be told to help small children and aged persons to cross busy streets.

Stand on the curb or in the safety zone when awaiting the street car. Always wait until the car stops when you want either to board or to dismount. However, should the car start up under either circumstances, observe these rules which you will find confirmed by railway men in all parts of the country! Enter a street car by grasping the forward handle with the right hand and stepping on with the left foot first; get off facing forward and outward, stepping off with the right foot first and retaining a firm hold of the handle with your left hand until your feet are firmly on the ground. In alighting from a street car, look back for teams and autos. Ride *in* the car—it is dangerous to allow any part of your body to project from the platform or car window.



Don't cross in front of a moving train or street car or close to the rear of a standing one. Climbing between cars at railway crossings is dangerous. If the train should start, where would you be? A ringing bell or moving signal at a railway crossing warns of the approach of a train—obey the signal. Crossing gates are to keep you from crossing; they are not to be crawled under.

A fire alarm should keep you to the sidewalk. Keep other children out of the street at this time, and enter fire lines only when properly authorized.

Safety at School

At school, the Scout's principal duty will be to instruct the younger children in those safety habits which should be part and parcel of his own conduct. He can protect them on the playground, assist them at street intersections, interpret traffic signals for them and, above all, see that they do not cross *between* intersections. On the playground, see that the smaller children get fair play from the older ones.



It would be splendid if you could be instrumental in starting a Junior Safety Council to investigate all unsafe conditions in the schools and to direct systematically the work outlined in the above paragraph. Go to the school authorities, or the local safety council, or write to the National Safety Council, Chicago, for particulars.

Assist in the organization of fire drills.

Safety at Play

Children are most liable to be reckless when playing, for play induces an excitement in which control is more difficult. The Scout, however, trained to be poised and level-headed, should be able to enjoy himself immensely and at the same time retain his poise and cool judgment. He should aid the playground director in supervising play, commenting upon any unsafe conditions he may observe. When play is not supervised, he can quietly serve as Safety Director of whatever group he is with.

Discourage the children from using streets or tracks as playing space, and boost the playground.



Be considerate in your sports; do not destroy property, public or private. Sling shots and air or "bee-bee" guns are dangerous playthings.

Kite flying is a fascinating sport, but it has its particular perils. Never use a wire string in flying, since contact with an overhead charged wire would mean either death or a serious accident. Fly the kite preferably in an open field, far from overhead wires. Speaking of wires in general, report broken ones to the police at once—one can never tell how dangerous they are—avoid handling wires hanging from trees or poles and do not climb such objects, if

they carry wires.

Don't loiter around a railroad yard, or play on or near the tracks. Read all warning signs at these localities and then obey them implicitly.

Strange dogs are unknown quantities—do not experiment.

Glance at the ground occasionally to avoid excavations or manholes, and should you see anything that might cause slipping, remove it to a proper refuse box.

Coast on a protected hill rather than on the street or highway and above all, don't coast across car lines or other busy streets.



Safety in Public Buildings

Self-possession is one quality that Scouts should possess. If you will think back over the stories of various great fires, you will remember that the biggest waste of life was caused as much by hysterical fear and panic on the part of the people as by unsafe buildings. The fires at the Ring Theatre in Vienna, the Iroquois Theatre in Chicago and in various schools would have taken a smaller toll of life, had the people kept their heads.

Upon entering a public building—school, church, theatre or assembly hall of any sort—look about for the nearest exit, and indicate such an exit to those with you. In an emergency, follow the instructions of and assist anyone who is in charge of clearing the building. Stampedes and panics may be caused by false

alarms; be sure that there really is something wrong before you raise a cry.

In an elevator, be courteous and do not push. Think of those weaker than yourself, young and old.

Safety While Hiking

Observe as many of the rules in "Safety Upon the Streets" as might apply to the simplified conditions under which you travel. Walk on the left side of the road where you can see oncoming cars. When walking at night, wear some light-colored article of apparel in order to attract the motorist's attention.

Do not depend upon streams and springs for your water supply unless they are in settled communities and have been tested. It is best to carry your drinking water in canteens.

Take along adequate First Aid equipment. (See pages 116 and 117.)

General Practices

The foregoing has covered the common dangers the average Scout will be called upon to meet, but there are many, many cases in which he will just have to use his head and put two and two together. With the above suggestions as a basis, the Scout can apply his Safety knowledge to any situation.

Just use common sense and think before you leap.

Give proper *First Aid* attention to all injuries, even the minor ones. Infection might otherwise result.

Be ever on the watch for unsafe practices or conditions, so that you may protect yourself against them and warn others.

Thus *more* people can get *more fun and joy* out of the "*adventure of living*."



Safety on the Farm

Each year over 4,000 farmers are killed and 90,000 are maimed. Farm children also, are exposed to constant hazards.

Avoid Machine Gears and Knives

Open gears, rollers, cutters, belts and pulleys, should have guards and covers.

In battles of Manila and Santiago we had fewer injuries than Wisconsin farmers have yearly from corn huskers and shredders!

Adjust machines from rear when out of gear. Unhitch team before adjusting mower knives, discs, etc. The team may start up. Edge tools—always cut away from you. Watch for weak ladders; for nails in boards.

Watch Animals' Teeth, Horns, Hoofs

A fly may cause a trusty animal to kick.
Be careful of animals with young.
Bulls, boars, stallions, dogs, are dangerous.
One is never safe with strange animals.

Requirement No. 12

"Furnish satisfactory evidence that he has put into practice in his daily life the principles of the SCOUT OATH AND LAW."

To have taken the Scout Oath and Law means that the Scout shall live them in his daily life.

A Boy Scout?

A club man in Miami recently took a blind man's arm and helped him across the street. As he had said nothing to betray his age by his voice he was asked this cryptic question by the blind man: "A Boy Scout?" The blind man evidently knew who some of his friends were.

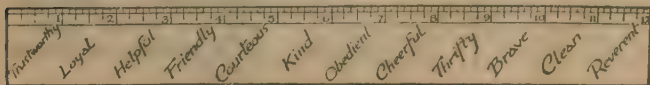


Self Examination

It is important that the Scout meeting Requirement No. 12, should stop and quietly look himself in the eye to see if he had **DONE HIS BEST**, and if not, to **improve himself** quietly and modestly but none the less surely.

MEASURE YOURSELF! Then "measure-up"!

For Merit Badges for Second Class Scouts see Page 390



The Scout Law Titles in Plains Indian Sign Language

The sign language employed by the Plains Indians, had but 761 words in it, according to Wm. Tomkins, of San Diego, California, who has studied it carefully and published it.

The "sign-words" which the Indian gave for the Scout Laws are very interesting to Scouts because they reveal something of how good a "Scout" the Indian himself was.

The Indian "sign-words" are very simple but full of meaning.

The Scout Law Titles	The Indian "Sign-words"	What the symbols on the next page MEAN
A Scout is		
(1) Trust-worthy	TRUE	Like an arrow, straight from the heart and lips.
(2) Loyal	HEART, TRUE	Stays that way.
(3) Helpful	HEART, BIG	Cares about others.
(4) Friendly	FRIEND	Growing up side by side.
(5) Courteous	TALK, GOOD	Good—means on a level with the heart.
(6) Kind	GOOD, KILL, NO	These 3 Indian words indicate no cruelty, no killing, but "good."
(7) Obedient	LISTEN	Listens—heeds what is said.
(8) Cheerful	HEART, SUNRISE	A remarkable picture "sunrise in the heart"!
(9) Thrifty	EXTERMINATE, NO	Leaves something for others.
(10) Brave	BRAVE	Knuckle to knuckle unflinching.
(11) Clean	HEART } MIND } TONGUE } GOOD	Meaning apparent — a wonderfully complete statement.
(12) Reverent	KNOW GREAT MYSTERY	The two fingers up is the sign for wisdom. God the Great Mystery, above man, not easily understood, indicated by the waving motion. The reverent one knows God!



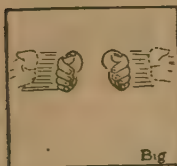
Scout



True



Heart



Big



Friend



Talk



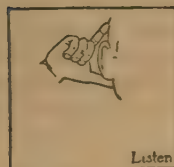
Good



Kill



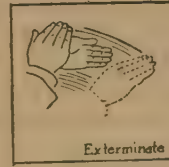
No



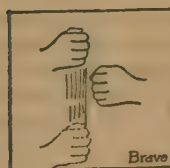
Listen



Sunrise



Exterminate



Bravo



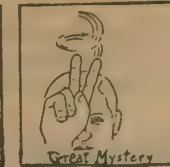
Mind



Tongue



Know



Great Mystery

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"Indian Sign Language"
by
W. T. L. L.



CHAPTER II

The Manners of a Scout

When Colonel Charles A. Lindbergh stepped from his little plane, "The Spirit of Saint Louis," after his one-stop flight from San Diego to New York, reports all stated that he won the hearts of everyone by his modest, manly bearing. In France, following his New York to Paris non-stop flight in thirty-three and a half hours, he met the same experience. In Washington and New York he was similarly beloved. Why? It was because people recognized the kind of young man he was, in the way he acted.

Manners is a word we use to describe how one acts.

We are quickly rated

Whenever a Scout (or anyone else) meets any person in business, in applying for a position, in social contacts—he is rather quickly rated. To the one who knows how to act modestly, courteously and hence, acceptably, there comes myriad advantages. To the one who does not know how to act, there comes myriad disadvantages.

How people act

Have you ever noticed what great differences there are in the ways people act? Some act pleasant, others grouchy; some seem honest, others crafty; some are courteous, some are rude; some are quiet, some are noisy; some are modest, some, swaggering. But you have noticed that their manners, the way they act, proclaim to us what sort of men they are!

Knights

The ancient Knights were known for their courtesy and chivalry. In fact gentleness is one unfailing characteristic of great strength. The weak man blusters to hide his weakness of body or brain or character.

Leaders

Have you ever noticed any of the great, outstanding leaders

of the world? If so, you have been impressed with the courtesy they extended to everyone. In fact, that is one reason for their being leaders.

Cannot be "put on"

Good manners are a business essential. Very little business can ever be done without them. Then too, like other habits, they are quite permanent unless replaced. They cannot be "put on" like new shoes, because they are habits. They can only be "put on" by *doing* them.

Fun

There is no conflict between "courteous manners" and fun. In fact those with good manners have less trouble and more fun and more friends.

What is fun, anyway? Anything we enjoy is fun for us.

Did you ever consider how many ways there are to find fun? Some find fun in working, some in loafing; some in keeping awake, some in sleeping; some in running, some in sitting; some in doing, some in dreaming; some find fun in walking, some in riding; some in hot weather, some in cold—we have an infinite variety of things, the doing of which is FUN.

It is fun to shout sometimes, but anyone living on a little planet with a few billion OTHER PEOPLE soon learns that the rights of others must be respected, and that there are times and places where yelling does not *fit in*. It is fun for some people, sometimes, to "rough-house" but those times need to be selected rather carefully. Certainly in a Scout meeting, or on the street, or in a public conveyance is no place to "rough-house."

Some fellows find fun in "showing off" and boasting but others quickly tire of such inflation.

Some low minded people find fun in bullying or teasing some smaller or weaker person. Such unfairness reminds one of the ancient tortures.

Some men find fun in staring at women and girls and trying to make advances to them. A well-bred Scout or gentleman will be of any desired service with a touch of his hat, but he never presumes to try to force his attentions or conversation upon them. This is one unfailing mark of the gentleman in any land.



The Scout

The Scout watches and finds his fun, when with any other people, in ways which do not disturb or annoy **them** in any way.

The heart of good manners is in caring about other people, in being as thoughtful and considerate of them as we would want them to be of us. In entering a house, it means that one cleans his feet. In a Pullman wash-room, it means leaving the basin clean for the next man; in entering a car in cold weather, it means closing the door; in walking on the streets or public stairways it means walking on the right hand side and not crossing in front of people but rather crossing behind them.

The spirit of good manners like the spirit of "The Good Turn" calls for no unusual setting, but rather it enters into the frequent common relationships of every-day living. Indeed if you will re-examine the Scout Law and The Scout Oath and "The Good Turn" you will find that every true Scout, every Scout who obeys his Oath and lives The Law IS courteous and thoughtful. And that is one of the reasons why the Scout is honored, because he has learned how to act toward others so as to get along effectively with them. "A Scout is courteous."



The following article on "Fire by Friction" is not a requirement but every Scout will want to master this method which is widely used to start Council Fires.

CHAPTER III

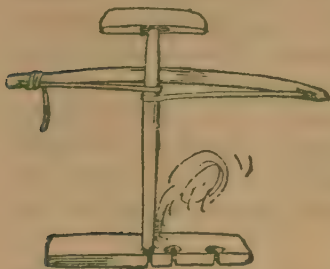
How to Make Fire without Matches

By DR. WALTER HOUGH, Smithsonian Institution, Washington, D.C.

I always was attracted by the evening campfire in the desert. Sitting by it in the night, hearing a coyote

"yap, yap" in the distance, the fire asserts its importance, almost demands attention. The fire becomes near to you, it seems almost part of you; perhaps most of the Boy Scouts will know how difficult it is to describe the relationship of fire and man. Perhaps some of the meaning is in the word companionship.

Someone asks whether man was ever without fire, and I answer, "I don't know." If we could imagine such a thing, let us cast about for ways by which he might get it. We think of lightning-struck trees. Right! That is a common



and frequent source used in later times when the need for fire was established. But this imagined fireless man does not know that he needs fire, so we will set him down alongside, not too near, a fire of nature's making, say a flow of recent lava from a bumptious volcano, where he will get all sorts of fire education, including quickly getting out of the way of it at times when the mountain lets off. So he gets the habit of fire and begins to drudge, keeping campfires in fuel all over his world.

Campfires, as everyone knows, have a fashion of going out even in the best regulated families, and this was, to say the least, a great inconvenience. We guess that here arose the need for matches. We do not know

how long it was before this need was supplied by fire sticks or "rub-a-lights." Seemingly it was a long while during which the things going to make up the fire drill were brought together gradually as a result of experience, till the "ancestor of matches" began his grindings. Boy Scouts who have gone through the process of making fire by wood friction are sure to feel a great respect for those unknown Edisons of the past who brought together the various inventions making up the complex fire drill.

Kinds of Wood

Scouts should be on the lookout for wood and tinder. There is nothing so good as questioning nature yourself; you may thus become a discoverer.

The best wood is dry and long seasoned till it begins to show signs of decay, as in a dead branch. It must not be gummy or resinous or fibrous like walnut or pine, or acid like oak, ash and chestnut. The test of all wood is that the dust ground off is real dust and not gritty. Try the dust in the fingers and if it feels sandy try some other wood. Elm, linden, poplar, soft maple, sycamore, and buckeye will often furnish good wood. Among the best woods are the roots of the cottonwood of the west and the willow.

Root wood is better than stem wood as a rule. The flowering stalks of the yucca are excellent for fire making.

The Tools

The bow is 17 inches long, $\frac{5}{8}$ inch wide, $\frac{1}{2}$ inch thick, and has a curve $\frac{1}{2}$ inch high on the belly. It can thus be whittled out of a strip $1\frac{1}{8}$ inches wide. The ends are swelled a little and holes put through for the cord.

The thong may be of belt lacing $\frac{5}{16}$ inch wide or

of any good pliable leather. One end of the thong is split, put through the hole, the other end put through the slit and drawn down. Merely run the thong through the other hole in the bow. The nut is a block 6 inches long, $1\frac{1}{2}$ inches square. Set in the middle a piece of soapstone and make a small smooth pit in the soapstone. *(Some recommend a braided thong.)*

Bows are of two kinds, elastic and rigid. If elastic the spindle can be set in on a stretched cord, but this sort of bow does not give good results. In the rigid bow the spindle is set in with a loose cord, the cord is then drawn tight and given a turn around under the hand against the bow to secure it. Then reach forward the thumb and pinch the cord down against the curved forefinger. By moving the thumb up and down the cord is tightened or slackened as desired. A little practice will show the relation between the pressure on the top of the spindle and the tension of the cord. This has to be learned and thoroughly under control before fire can be successfully made. Keep the spindle straight up and keep the bow away from it. The spindle must not joggle or the hearth shake, or you will lose the fire. Both fire-making pieces may be of the same wood; indeed, it is better that they should be the same. Some tribes, when their wood is not long enough to make a spindle, splice a bit of the good wood in at the point of another piece.

EDITORIAL NOTE.—Two kinds of bows are indicated here—one, the rigid bow developed from ancient usage; the other, the elastic bow as described by Smith. The Scout may desire to try these out to see which is best suited for his own use.

As to the tinder or first fuel, this is of many kinds and may be found anywhere by any Scout. Soft finely divided, inflammable material is needed. Cedar bark, inner chestnut bark, inner red elm bark, bird and field mice nests, crushed spruce needles, beaten or charred rope fibre, etc., etc.; whatever comes handy,

rubbed and reduced to a fluffy mass. Have ready also a bunch of long-stemmed grass, a strip of bark, or anything that can be bent over the new fire.

HOW I MADE FIRE IN 6 2/5 SECONDS

By DUDLEY WINN SMITH

Independence, Mo., Assistant Scoutmaster and Eagle Scout

Now, I believe any Scout can make a fire and can make it fast, provided he has good materials; of course, almost any wood will make a fire, but I consider elm and yucca the very best. The elm should be old and seasoned by nature. Don't try lumber-yard wood—it is never properly seasoned. The elm wood must be solid, not punky. The yucca stalk, after it is dried, is always good and can always be depended upon for speed; although it wears down more quickly than elm.



The dimensions of my fire set: board of elm or yucca, $\frac{3}{8}$ inches or less in thickness, any width and length; spindle, 8-sided, $\frac{5}{8}$ inch in diameter about ten inches long. Bow made of any wood, 30 inches long, and having at least a three inch bend and a $\frac{3}{8}$ inch wide green lace leather thong attached by holes in each end of bow. Tinder: made of red cedar bark and prepared by roughing up and beating with a wooden club. The top or thunderbird: a block of any wood, shaped to fit the palm, with the top knob of a glass percolator inserted and sealed in with bees wax.

Some Important Pointers in Speed Fire-Making:

- 1.—Bore the new fire-pit with the spindle before cutting the notch.
- 2.—Cut the notch U-shaped and not V-shaped, also not quite to the center.
- 3.—Keep the end of the spindle as nearly flat as possible.
- 4.—In making the flame, take long steady blows and do not wave the tinder.
- 5.—Take long strokes with the bow. Eliminate the short choppy strokes.
- 6.—Bear down hard on the spindle from the start. Do not decrease or increase the pressure.
- 7.—Hold the board steady, and also the spindle.
- 8.—Do not let the tinder fill up the notch.

The real test of whether or not you are a fire-maker is, if you can go into the woods and make a fire, using only natural materials and your boot lace, knife and axe. Good luck to prospective record-breakers and beginners!

EDITORIAL NOTE.—Smith rates woods in the following order: Yucca, American elm, red elm, balsam fir, red cedar, willow root, cypress, basswood, sycamore, cottonwood, poplar, soft maple, white pine.



Flint and Steel

Steel, when struck a glancing blow against flint or quartz or agate, etc., will give off sparks. If these be "caught" in charred cotton, fuse rope, candle wicking, charred cotton flannel—a single spark will start a fire. Such an outfit can be easily carried in one's



pocket.

PRACTICE WILL PRODUCE SKILL



THE SCOUTING TRAIL

This is the Trail that the Scout shall know
Where knightly qualities thrive and grow;
The trail of honor and truth and worth
And the strength that springs from the good brown earth;
The trail that Scouts, in their seeking, blaze
Through the toughest tangle, the deepest maze,
Till out of Boyhood the Scout comes straight
To Manhood's splendid and high estate!

—By Berton Brakey.

Part IV

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*For Manual Alphabet for the Deaf see page 161.



- (1) At least two months' service as a Second Class Scout.
- (2) Swim fifty yards. (Jump overboard, feet first into water slightly over his head, swim twenty-five yards, make a sharp turn about, and return to the starting point.)
- (3) Earn and deposit at least \$2 in a public bank (premiums paid on life insurance, are accepted if earned,,) or plant, raise and market a farm crop.
- (4) Send and receive a message by Semaphore Code, including conventional signs, thirty letters per minute, or by the General Service Code (International Morse) sixteen letters per minute, including conventional signs; or by the Indian Sign Language Code, thirty signs per minute; or by the Manual Alphabet for the Deaf thirty signs per minute.
- (5) Make a round trip alone (or with another Scout) to a point at least seven miles away (fourteen miles in all), going on foot, or rowing a boat, and write a satisfactory account of the trip and things observed.
- (6) Review Second Class First Aid Requirements. Describe methods of panic prevention, what to do in case of fire, ice, electric and gas accidents; what to do in case of a mad dog bite or snake bite. Demonstrate the treatment, including dressing where necessary, for a fracture, poisoning, apoplexy, heat exhaustion, sunstroke, frost-bite and freezing, also demonstrate the treatment for sunburn, ivy poisoning, bee stings, nosebleed, ear-ache, grit or cinder in the eye, stomach-ache; demonstrate transportation of the injured; demonstrate the triangular bandage on the head, eye, jaw, arm (sling), chest, fractured rib, hand, hip, knee, ankle and foot. (Roller bandages may be substituted on arm and ankle.) Demonstrate how to make and apply a tourniquet.
- (7) Prepare and cook satisfactorily, in the open, using camp cooking utensils, two of the following articles as may be directed: eggs and bacon, hunter's stew, fish, fowl, game, pan-cakes, hoe-cake, biscuit, hardtack or a "twist" baked on a stick, and give an exact statement of the cost of the materials used. Explain to another boy the method followed.
- (8) Read a map correctly, and draw from field notes made on the spot, an intelligible rough sketch map, indicating by their proper marks important buildings, roads, trolley lines, main landmarks, principal elevations, etc. Point out a compass direction without the help of the compass.
- (9) Use properly an axe for felling or trimming light timber; or produce an article of carpentry, cabinet-making, or metal work, made by himself; or demonstrate repair of a decaying or damaged tree. Explain the method followed.
- (10) Judge distance, size, number, height and weight within 25 per cent.
- (11) Describe fully from observation ten species of trees or plants, including poison ivy, by their bark, leaves, flowers, fruit, and scent; or six species of wild birds, by their plumage, notes, tracks, and habits; or six species of native wild animals by their form, color, call, tracks, and habits; find the North Star, and name and describe at least three constellations of stars.
- (12) Furnish satisfactory evidence that he has put into practice in his daily life the principles of the Scout Oath and Law.

My First Class Scout Score Board

First Class Requirements



To become a First Class Scout

Score Board

Name

FOR ME TO KNOW AND DO

- 1 60 Days Service
 Test Passed Date Signed Scoutmaster
- 2 Swim 50 yards
 Test passed Date Signed Examiner
- 3 Earn \$2 Thrift Deposit or Raise Farm Crop
 Test passed Date Signed Scoutmaster
- 4 Signal Messages by Code
 Test passed Date Signed Examiner
- 5 14 mile Hike
 Test passed Date Signed Scoutmaster
- 6 First Aid
 Test passed Date Signed Examiner
- 7 Cooking
 Test passed Date Signed Scoutmaster
- 8 Map Making
 Test passed Date Signed Examiner
- 9 Axe, or Handicraft, or Tree Repair
 Test passed Date Signed Scoutmaster
- 10 Judging
 Test passed Date Signed Scoutmaster
- 11 Nature Requirement
 Test passed Date Signed Examiner
- 12 Living the Oath and Law
 Test passed Date Signed Scoutmaster

First Class Test Completed Date
 Signed by Scoutmaster

Now The trail leads
 to "Eagle Scout"

See

Page 391



CHAPTER I

Note—Life saving is not a requirement for becoming a First Class Scout—every Scout, however, will want to “Know How”—will want to “Be Prepared.” For that reason the following ten pages have been inserted here.

Life Saving and Swimming

By *COMMODORE W. E. LONGFELLOW*

Associate National Director of Life Saving, American Red Cross
and

FRED C. MILLS

Director of Swimming and Water Safety, BOY SCOUTS OF AMERICA

A personal Word to All Scouts

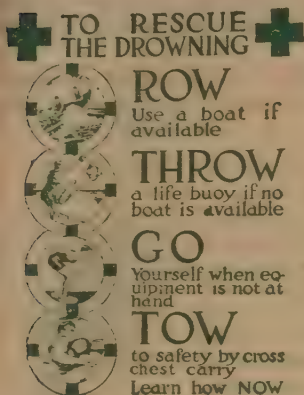
Before a Scout may successfully venture to assist, by swimming, a fellow being in distress, he must be master of himself and perfectly at home in the water.

For years life saving teachers have attached too much importance to rescues by swimming and not enough to making the rescue by means of equipment which might be available.

The following points in connection with rescue work should be studied and carefully thought through by the Scout who studies life saving.

1. That practically all drowning accidents occur within a few feet of shallow water, or from a wharf or solid structure which will offer support.
2. Over 50 per cent of the persons who go down have some swimming ability, and usually simply needed assistance such as a push toward shore or help to get them into a swimming position from the standing position in which they struggle.
3. Usually there is available a boat or a line or a board or some piece of material which can be pushed to the person in trouble, making the rescue more sure and less dangerous.
4. The first thing to do in all rescues is for the Scout to call loudly for help; continue to call for help until he has completed the rescue or until help arrives. The second thing

for him to do is to attempt the rescue without entering the water. The Red Cross slogan for rescue work is:



Remember that swimming is the last method to be used in rescue work, not the first, and is only to be resorted to when other means are not practicable.

Scouts should bear in mind that it is usually unnecessary to enter the water for persons unless they have gone down. In this case, the rescuer must necessarily enter the water. Up to the time they are going under there is always a chance of reaching them with some piece of apparatus. Never lose sight of your man for an instant. The Scout should never approach the sub-

ject from the front, if it is possible to get back of him. Scouts should remember that "death grips" are not necessarily deadly, and the quickest way to get away from such a grip is to take a big breath and go down, as a drowning person will not hold on if he is being carried under water. In case the subject is taken ashore and is unconscious, resuscitation must start instantly and the Scout must continue until such time as the subject returns to consciousness, or has been given up for dead after the stiffening of the body. If available, a physician should examine.

Cramps

Cramps are not deadly unless you get frightened. To avoid stomach cramps stay out of the water full two hours after eating. In muscle cramps, submerge and pinch the muscle vigorously **THEN GO ASHORE**. For toe cramp, pressure on the nerve on the inside edge of the arch of the foot will bring relief. If you are subject to cramps, avoid long swims and stay close to shore.

No swimmer should swim far out unless accompanied by a boat. The boat should be manned by two people, one to row, and the other to observe the swimmer, and be ready to assist him if necessary.

Diving

It is dangerous to dive into unknown waters. Enter the water feet first, and determine the depth, also the conditions at the place where you intend diving. Be on your guard for sunken trees, wreckage, etc.

Where a number of people are diving, one should not enter the water until the one who dived before him has come up and is out of the way.

Floating

Every Scout should thoroughly understand the value of floating, particularly if he is to take voyages off-shore and face a possibility at some time of finding himself in water either so rough as to prevent him from swimming, or so far from shore that swimming will do him little good. We quote the following story told by an expert in life saving service of the American Red Cross:



"One of the best illustrations I can give to bring out the value of floating is A Man Overboard accident that I witnessed at sea during the Spring of 1918, while the World War was still on and every ship at sea was constantly on the alert to prevent or escape possible submarine attacks. About six o'clock one night in April, in the Gulf Stream off Newfoundland, one of a convoy of twenty-one ships sent up the signal. For the past four days a terrific sea had been running forcing the fleet to reduce their speed to four knots per hour. Through glasses we were able to distinguish a sailor in full uniform with the exception of shoes, floating on his back about 200 yards to port and the same distance astern of us. He had been washed off the gun deck of his ship which was a 20,000 ton transport. On account of an erroneous signal, first displayed, all of the ships had started to zig-zag to avoid the expected attack, and therefore none of them were in position to pick up the unfortunate sailor. He, however, showing great presence of mind, had divested himself of his shoes and with hands clasped under his head had continued to rock back and forth in the trough of the sea almost as comfortable it seemed as if he were in his hammock on shipboard. After two hours his ship came about and lowered a life-boat which, however, was smashed. A half-hour later he was taken aboard safely, suffering only from submersion.

"Had he attempted to swim he would have been exhausted and drowned within five minutes. However, by using his head, keeping cool and following the instructions that he had received in floating, he was able to keep afloat, and by so doing saved his life."

Not everyone can float in fresh water, but it is usually possible for practically everyone to float in salt water, particularly if they have clothing on which will carry air for a considerable length of time. If it should ever happen that a person is thrown suddenly

into the water and in order to save his life must swim ashore, he should remove all clothing immediately. If however, he can only be saved by floating and remaining quietly in the water, it would be better for him to leave all clothing on except his shoes, as his clothing is not only buoyant for a certain length of time, but it contains a certain amount of warmth even though wet.

Water Buddies

Scouts should always swim with a Buddy. At camp they are paired off according to ability at swim periods each to be ready to serve the other and also as a form of check up. The first rule for bathing is always swim in company. Lone bathing often results in fatalities. An interesting feature of this camp system is to set the Buddies swimming around in pairs, trying out their growing powers against each other. There are two voices to call for help, two pairs of eyes to watch for danger, and one swimmer to hold up the other in case of stomach cramps or sudden illness in deep water. Such a system is as important in shallow water as in deep, because bathers have drowned in the midst of a crowd in water barely up to the waist line. With the Water Buddy system the victim of such an accident would be immediately missed and probably recovered in time for prompt restorative measures.

Rescue from Water

Approved by the American Red Cross

When necessary to rescue from the water there are four problems:

- I Approaching the drowning person.
- II Breaking any "grips" he may make.
- III Carrying him through the water.
- IV Shore treatment if necessary.



Rear Approach

I Approaches

1) From the rear if possible. Put your hand under his chin, pull his head back and with the other hand under his back raise him to a horizontal position for carrying.



2) The under-water approach is shown here. Turn the subject about then follow No. 1.



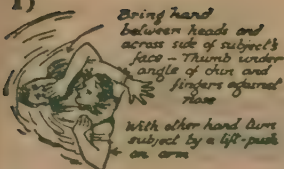
3) The surface approach must be done very carefully—grasp his right with your right (or left with left) from above, and while using scissor kick lean backward and pull him quickly toward you—his back toward you, then proceed as in No. 1.

The aim of the approaches is to get the subjects back toward you, so as to be safe from an attempt to grasp you.

II Breaking Dangerous Grips

There are many dangerous "grips" not shown here—but one principle holds, take him under water and he will probably "let go" or at least be easier to get loose.

1)



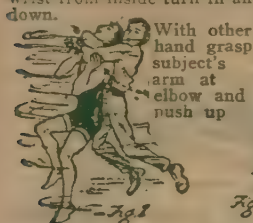
Rescuer ducks under arm



2)

With one hand grasp subject's wrist from inside turn in and down.

Still turning arm, come out under it



Hold arm lock



3)



Turn subject around by pushing feet against shoulder of arm which is not held. Hold and pull on other arm.

Bring free hand across and grasp subject's wrist. Thumb on top as shown



4) Separating two people

Place your hands on throat (Adams Apple) of one and your foot in same position on other and separate. One of them may be handled by usual method.

III Life Saving Carries

1) Head Carry



Both hands over ears, middle finger under jaw—pull chin high to arch back—swim by scissors or frog kick.

2) Hair Carry



3) Cross Chest Carry

Swim on side, hip against small of his back. Ideal carry as subject is under control.



4) Arm Lock Carry

Biceps held under his body as shown.



5) Tired Swimmer Carry

You swim breast stroke while he floats. Cannot of course be used if one person is panicky.



IV Shore Treatment (see pages 128—131)

Waste no TIME in carrying any distance—STOP at once and begin resuscitation. (See page 128.)

BEGIN QUICKLY in application of artificial respiration. **SAVE THE SECONDS AND YOU HAVE A BETTER CHANCE OF SAVING THE LIFE.** Don't waste time carrying victim to a quiet spot. Work where he was taken from the water. Waste no time trying to get the harmless water out of the stomach. Turn subject face down and **GO TO WORK INSTANTLY.**



Don't Give Up *

Place the hands just below subject's shoulder blades, four inches apart, with palms turned forward, and thumbs outward. Scrape edges of hands back toward pelvis until they stop.

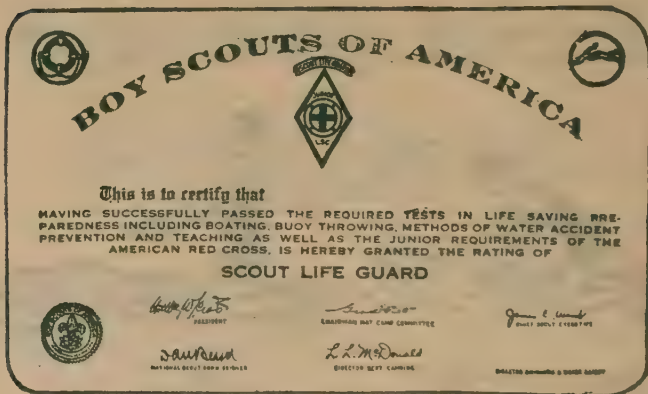
Move weight of body slowly downward and forward for about three seconds—don't slide, don't bend arms. Keep arms straight. The shoulders should be behind the hands, so that the pressure is exerted forward. *Snap hands off allowing the lungs to fill with air. Swing your body slowly backward to an upright position, thus relaxing the muscles of the back.

At the end of two seconds, again place the hands in position and apply pressure. This timing (three seconds pressure and two seconds release) uses five seconds for one complete respiration, or twelve respirations per minute.

To assist in properly timing these movements, repeat either silently or aloud during the period of pressure "out goes the bad air," then snap off hands and repeat during the period of release "in comes good," or count slowly 1, 2, 3 for pressure, and 4, 5 for release, one count for each second. * See page 131.

Scout Life Guard Test Requirements

In order to be eligible to take a Scout Life Guard Test a boy must be a First Class Scout and hold a Junior Life Saving Card of the American Red Cross. Or, if he does not hold a Red Cross card, he must take an examination for Red Cross rating with a certified examiner at the same time he takes his Scout Life Guard Test.



The purpose of the Scout Life Guard is to provide the Troop, Patrol and Council with an auxiliary which will supplement the paid or volunteer experts in protecting Scout swimmers, in teaching swimming, life-saving, boating and canoeing, either at swimming pools in the winter, or camp in the summer. It may also be organized in a similar manner to act as an auxiliary life-saving unit for the community.

It is desirable to have one Scout Life Guard in each Patrol, at least two for each Troop, and a Patrol of at least eight at the summer camp.

Requirements

1. Swim one-quarter mile, any stroke.
2. Swim fifty feet, using back stroke.
3. Perform straight, front or racing dive.
4. In boat alone row 50 yards straight ahead.
5. Back water 50 yards to start.
6. While rowing, ahead, make half circle turn to right and same to left maintaining headway.
7. From resting on oars, boat motionless, make half circle turn to right and same to left, by backing with one oar and pulling with other.

8. Boat made fast, bow and stern at dock, cast off and get under way as though to make a rescue. Return and make fast with oars and equipment ready for use.
9. Boat stern upon beach and bow out, shove off and get under way, as though to make rescue. Return to beach on command, landing stern first, make fast, leave boat with oars and equipment ready for use.
10. With another applicant for Scout Life Guard rowing, approach struggling person properly and hold him at stern until shore is reached.
11. Throw 17 inch life ring equipped with 60 feet of $\frac{1}{4}$ inch line three times in one minute between two marks five feet apart, thirty feet from throwing mark.
12. Instruct three Scouts in rowing, or two in canoeing, or two in swimming (elementary or advanced) or two in life saving so that they can pass their required tests.
13. Know and be able to explain plan of camp water-front protection and Buddy Plan.
14. Answer ten questions selected by examiners from list.
15. Explain and be able to demonstrate one of the accepted methods of group swimming teaching.
16. Know the four requirements of a successful swimming teacher—patience, tolerance, judgment and perseverance.
17. Explain how to organize lost bather drill.

Speaking of Courage



I hardly know when a more striking example of Scout courage and scorn of obstacles has reached us than that of the one-armed Boy Scout, Howard Rote of Vineland, N. J., who dove from the upper deck of a yacht and rescued a child who had fallen off a public pier. Both the Scout and the child were in danger of being crushed between the pier and the swinging yacht before the rescue could be effected. This is not the first time Rote has qualified as a life saver. Twice before he has saved persons from drowning, in one case rendering artificial respiration. —From Boys' Life.

CHAPTER II.

First Class Scout Requirements



A Second Class Scout may be advanced to First Class providing he meets the following twelve requirements:

Requirement No. 1

TO BE

"At least two months' service as a Second Class Scout."

Trying earnestly to live the Oath and Law.

How to Be "Physically Strong, Mentally Awake, Morally Straight"

"Physically Strong"

What does that mean? Theodore Roosevelt was an invalid, but he made himself physically strong. James E. West, Chief Scout Executive, was a healthless, helpless cripple—but he too builded his body to rugged strength.

What should the Boy Scout do to make and keep himself "physically strong"?

He will find it necessary to keep the **body frame erect** by the way he sits and walks; to keep the **skin clean** and thus free from numerous disease germs; to keep the **lungs big** by deep breathing to burn up the poisons which gather in the blood; to keep the **heart strong** by moderate yet regular usage, so it can pump its life to every cell; to keep the **appetite normal** for food, eating wisely, including fruit and green things, chewing carefully, fasting between meals, drinking plenty of water, eating to live; keeping the **bowels and kidneys open** and regular in removing the ashes from our bodily furnace, waste which quickly poisons us if not regularly removed; to keep up **replacement of energy** by rest and sleep; to keep the **special senses keen** by proper use—the **eyes** by reading under proper light conditions; the **ears**,

by keeping them carefully cleaned; the teeth, by washing twice daily and having them examined twice a year—these are a few of the things the Scout learns to do to **keep himself strong**, so that he may be useful and may enjoy life, for health is the foundation on which every other thing in daily life is builded.

“Mentally Awake”

What does that mean? The Scout who is mentally awake is ever watching to learn, to understand new things and know more about old things. He rarely makes the same mistake twice. He uses his leisure. Some great men have stocked their lives with big ideas by reading fifteen minutes every day!

“Morally Straight”

What is moral straightness? Is it morally straight to deceive any one? Is it morally straight to waste one's employer's time, for example? No! The average boy knows exactly what morally straight means—knows that it means being a “straight shooter” who can be depended upon—who will never take unfair advantage of any one in any way.

Requirement No. 2

“Swim fifty yards.” Jump overboard feet first in water slightly over his head, swim twenty-five yards—make sharp turn about and return to starting point.

Every Scout owes it to himself and to other people to **know how to swim.**



This fifty-yard test is not a speed test and any stroke or combination of strokes may be used. Scouts who have

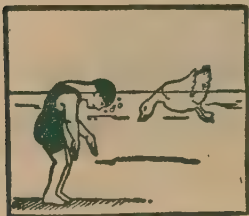
ear or sinus trouble should not swim or dive unless permitted by their physician.

Captain Mills tells us that the danger point for the beginner is that he gets frightened when he finds himself in deep water in an upright position.

Learn to Swim (*by the Brink Method*).

STEP 1. SEEING

(a) Hold breath and open eyes under water—you can see easily. (Like the duck.)



STEP 2. BREATHING

(b) Inhale through the mouth above water and exhale through the nose under water (Like a motor boat).

Try this first thing, it's easy.

STEP 3. FLOATING

(a) The easiest way to float in the water is to balance yourself like the jelly fish or lily pad—just pull your feet up.

(b) Then you'll find you can lie along the surface like the frog or turtle.

a

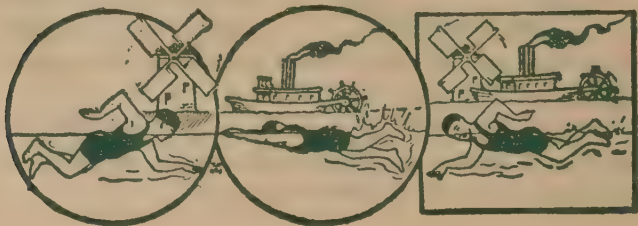


b



STEP 4. MOVE—THEN KEEP GOING

First with the hands—like the windmill, then with the feet like a paddle wheel steamer—THEN both together.





Red
Clover



Corn



Alfalfa



Oats



Timothy



Wheat



Cow Peas



Barley



Soy Beans



Rye



Millet



Cotton

D.V. JANSON



Strawberry



Watermelon



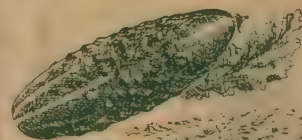
Raspberry



Squashes



Blackberry



Cucumber



Currants



Cantaloupe



Gooseberries



Pumpkin



Grapes



Gourd

AR. DV. JANSON



AR-DV JANSON

Requirement No. 3

“Earn and deposit at least two dollars in a public bank (Premiums on life insurance, if earned, are accepted); or plant, raise and market a farm crop.”

As Ben Franklin has said in his immortal sayings of Poor Richard:

“Every little makes a mickle.”

“Every penny saved is two pence clear.”

“A pin a day is a groat a year.”

“Save and have.” (See page 169)

“All men are not equally qualified for getting money, but it is in the Power of everyone alike to practice this virtue—Thrift.”

Requirement No. 4

“Send and receive a message by Semaphore, including conventional signs, thirty letters per minute; or by the General Service Code (International Morse), sixteen letters per minute, including conventional signs; or by the Indian Sign Language Code, thirty signs per minute; or by the Manual Alphabet for the Deaf, thirty signs per minute.”

GENERAL SERVICE CODE

The inexperienced sender is often unable to make his signals understood by the receiving station, due to the fouling of the flag on the staff. This occurs when the sender tries to swing the flag down and back in the same line. The correct position is to make the end of the staff

describe a loop or figure eight, so that the flag on the upstroke follows a path about four inches toward the wind from its path on the down stroke.



When the wind is blowing from either side sending is of course difficult, but the

experienced signaler makes the most of even this condition by facing slightly into or away from the breeze in a manner that will enable him to give the receiving station the greatest possible sight of the full fly of the sending flag. The flag at all times should be swung in a quiet easy manner, avoiding jerk and whipping. Too much speed to start with will soon tire the signaler and result in poor signals.

Rapidity is secondary to accuracy. Every letter should be made distinct and with an easy rhythm.

Get so far away that it is not possible to call back and forth, or run easily. Send real messages of ten words or more.

Never pass between Scout signaling and station while he is signaling. Don't talk to Scout reading.

To select a visual station choose a point perfectly in view of the communicating station; fix the exact position in which the flagman is to stand, so arranged, if possible, that when viewed from the communicating station he will have behind him a background of the same color for every position in which the signals may be shown.

The color of the flag must contrast as strongly as possible with that of the background.

No message will be considered sent until its receipt has been acknowledged by the receiving station.

When a station has sent all messages on hand, the signal "Cease signaling" should invariably be made. When nothing more is to be sent from either station, both will make "cease signaling."

Visual Signaling in General

The General Service Code is used with the following methods of signaling:

(a) By torch, hand lantern, or beam of searchlight (without shutter).

(b) By heliograph, flash lantern, or searchlight, ordinarily used for long-distance signaling, when no shutter is available, in a similar manner to the flag or torch, the first position being vertical. A movement of the beam 90 to the right of the sender INDICATES A DOT, a similar movement to the left indicates a dash. The beam is lowered vertically for front.

To use the torch or hand lantern, a footlight must be employed as a point of reference to the motion.

Semaphore Code

In sending be careful of the background; in making the interval the flags are crossed downward in front of the body (just above the knee); end of message in three successive "chop-chop" signals and withdrawing the flag from view. In calling a station, face it squarely and make its call. If there is no immediate reply wave the flags over the head to attract attention, making the call at frequent intervals. When the sender makes "end of message" the receiver, if message is understood, extends the flags horizontally and waves them until the sender does the same, when both leave their stations. Care must be taken with hand flags to hold their staffs so as to form a prolongation of the arms.



Meaning	General Service	Semaphore
End of word	Interval	Interval
End of sentence	Double interval	Double interval
End of message	Triple interval	Triple interval
Received—go ahead—all right (R)		R
Error (EEEE —)		A
Negative (K)		K
Preparatory (L)		L
Annuling (N)		N
Affirmative (P)		P
Interrogatory (U D)*		O
Repeat over after	Interrogatory, A.....	O A (word)
Repeat last message	Interrogatory 3 times.	O O O
Send faster (Quicker)	Q R Q.....	Q R Q
Send slower	Q R S	Q R S
Cease sending (Terminate)	Q R T.....	Q R T
Execute	IX	IX
Move to your right	M R.....	M R
Move to your left	M L.....	M L
Move up	M U.....	M U
Move down	M D.....	M D
Signal separating pre- amble from address; address from text; text from signature.		
Wait a moment (As)*		
Finished (end of work)		

“Intervals” are expressed as follows in the various systems:

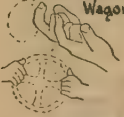
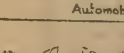
	Interval	Double Interval	Triple Interval
Radio, Light, Sound —space			
Wigwag	Front	(Twice)	(3 times)
Semaphore	Flags crossed	2 chops	3 chops with- draw flags

*The four starred conventional signs (like Interrogatory for example, which is the same as General Service U D. without the interval) have the letters in parenthesis given merely to help remember the character in question—although made without the intervals.

COL I	COL II	COL III	COL IV	COL V	COL VI
CHARACTER	INTERNATIONAL OR CONTINENTAL MORSE WIG-WAG Sound. Flash Sight Wireless	AMERICAN MORSE Land Telegraph Code.	SEMA PHORE HAND FLAGS	INTERNATIONAL CODE OF SIGNAL FLAGS (MARINE) White. Black. Red. Blue. Yellow.	SECONDARY MEANING Refer to Columns indicated.
A	— ·	— —			Numeral 1 Col. IV.
B	— · · ·	— · · ·			Numeral 2 Col. IV.
C	— · · · ·	— · ·			Numeral 3 Col. IV.
D	— · ·	— · ·			Numeral 4 Col. IV.
E	·	·			Numeral 5 Col. IV.
F	— · · ·	— · ·			Numeral 6 Col. IV.
G	— · ·	— · ·			Numeral 7 Col. IV.
H	— · · ·	— · · ·			Numeral 8 Col. IV.
I	· ·	· ·			Numeral 9 Col. IV.
J	· — · — · — · —	— · · · ·			Numeral 0 Col. IV.
K	— · ·	— · ·			
L	— · · ·	— ·			
M	— · ·	— ·			

COL I	COL II	COL III	COL IV	COL V	COL VI
CHARACTER	INTERNATIONAL OR CONTINENTAL MORSE WIG-WAG Sound. Flash. Sight. Wireless.	AMERICAN MORSE <i>Land Telegraph Code.</i>	SEMA PHORE HAND FLAGS	INTERNATIONAL CODE OF SIGNAL FLAGS (MARINE) <i>White - Black - Red - Blue - Yellow.</i>	SECONDARY MEANING <i>Refer to Columns indicated.</i>
N	--.	--.			
O	---	..			
P	----				READY TO SAIL. Col. V.
Q	---.				QUARANTINE Col. V.
R	---.	..			
S	...	...			I WANT A PILOT. Col. V.
T	-	-			NUMERALS GENERAL SERVICE CODE
U		...			1-----
V					2-----
W					3-----
X					4-----
Y		..			5-----
Z		...			6-----
					7-----
					8-----
					9-----
					0-----
					NUMERALS FOLLOW

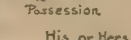
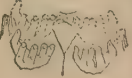
Indian Sign Language Code

			
Across	*After	All	All Gone
			
Among	Angry	Arrow	Astonish
			
Wagon			Big
	Automobile		Bear
			Beside
	Bird		Book
			Brave
	Brother		Cannot
			Chief
	Cold		Dog
	Done		Down
	Up		Effort
	Equal		

—From "Universal Indian Sign Language" by William Tomkins.

- ACROSS.** Pass the partially compressed right hand over left on a curve.
- AFTER** (meaning: falling behind). Left and right hands well out in front of left breast, but right hand behind; then draw right hand to right and rear. This refers to time—a short move for short time—longer move for longer time.
- ALL.** Move right flat hand in horizontal circle from right to left, breast high.
- ALL GONE.** Point both extended hands at each other in front of breast. Then loosely wipe ends of fingers of right hand across palm and fingers of left, and vice versa.
- AMONG.** Weave right index through fingers of left.
- ANGRY** (meaning: mind twisted). Move hand by wrist action give small twisting motion.
- ARROW** (meaning: drawing an arrow from left hand). Hold left hand near left breast.
- ASTONISH.** Palm of left hand held over mouth. Denotes great surprise, pleasure, or disappointment.
- AUTOMOBILE.** Make sign for WAGON and then imitate steering wheel.
- BEAR** (meaning: large ears). Others add hands in front clawing downwards.
- BESIDE.** Bring extended right index against center of left palm.
- BIG.** Bring compressed hands in front of body, separate the hands—bringing them apart.
- LITTLE.** Hold right hand at height of shoulder, back to right, end of thumb pressing against inner surface of index, so that only the end of index is seen beyond the thumb nail.
- BIRD** (meaning: wings). Imitate motion of wings. Small birds rapidly, large birds slowly.
- BOOK.** Look at hands as if reading.
- BRAVE.** Hold left fist 8 inches from center of body. Strike downwards with right fist. Some Indians make the signs HEART and STRONG.
- BROTHER.** Bring tips of two first fingers of right hand against lips, carry hand straight out from mouth, then sign for MAN.
- CANNOT** (meaning: cannot go through, or bounced back).
- CHIEF** (meaning: elevated, rising above others and looking down at them).
- COLD** (as though shivering from cold).
- DOG** (meaning: wolf drawing teepee poles). Draw right hand across in front from left to right.
- DONE** (meaning: cut off).
- DOWN.** Point downward. **UP.** Point upward with right index.

Indian Sign Language Code

			
Father	Fire	Exchange or Trade	Flag
			
Fond	Give	Grass	Half
			
Halt	Hard	Heap	Hide
			
High	Possession	Hole	Horse
			
Low	His or Hers.		
			
Mouse	Hunt	Keep	Know
			
Laugh	Leaf	Listen	Long Time

—From "Universal Indian Sign Language" by William Tomkins

EFFORT. Place both fists as with an effort.

EQUAL (meaning: even race).

FATHER. With compressed right hand gently tap right breast two or three times; then make the sign for MAN.

FIRE (meaning: blaze leaping). Snap fingers upwards. Repeat.

EXCHANGE or TRADE. In semi-circle strike past each other.

FLAG. Left hand staff, wave right hand several times.

FOND (meaning: pressed to the heart). This expresses regard, liking, fondness, affection and love.

GIVE. Hold right hand flat, back to right, pointing to front and upwards, in front of body at height of shoulder; move hand out and down.

GRASS. Hold the hands, back downwards, arms extended downwards to full length, in front of body, fingers extended, separated and slightly curved, pointing upwards; then swing apart.

HALF. (Cut in two parts.)

HALT. Hold right hand palm outwards, in front of body, height of shoulders; move hand sharply to front and downwards, stopping it suddenly.

HARD. Strike with right fist two or three times.

HEAP. First indicate gathering in from the sides, then bring hands upwards in curve to show the shape.

HIDE. Left hand held out flat, pointing right obliquely. Right hand, same position pointing left. Pass right down under left.

HIGH. Hold right hand, back up, in front of right shoulder to height desired.

LOW. Hold right hand, back up, down towards the ground.

HIS or HER. Indicate who, make sign for POSSESSION.

HOLE. Make circle with thumb and index of both hands; then, holding left in position, press compressed right through hole.

HORSE. Place right index and second fingers astride left hand.

HOUSE (meaning: corner of log house). Cheyennes frequently indicate shape of gable roof with both hands pointing up.

HUNT. Sign for WOLF, bring hand near eye, move it around.

KEEP. With right hand grasp left index firmly while moved.

KNOW (meaning: drawn from heart).

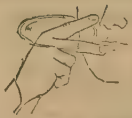
LAUGH. Hold both hands partly closed, in front of both breasts, palms up; then move them up and down.

LEAF. Make the sign for TREE; then hold right hand out in front of shoulder, index and thumb curved, one inch between tips, other fingers closed, back of hand nearly to right, lower edge pointing to front and upwards; give a wavy motion to hand to represent leaf on limb of tree.

LISTEN. Turn hand slightly back and forth.

LONG TIME. Make sign AFTER, drawing the hands far apart.

Indian Sign Language Code

			
Mary	Mar. T.	Medicine	Meet
			
Money	Mother	Noun	Now
			
Old	People	Rope	Sharp
			
Sing	Sit or Remain	Silent	Snake
			
Snow	Steal	Strong	Swine
			
Taste	Think	Want	Work

—From "Universal Indian Sign Language" by William Tomkins

MANY. Hold hands well in front, to right and left of body, fingers curved and pointing to front; move hands towards each other on vertical curve downwards; move them slightly upwards as though grasping hands, and finish with hands opposite.

MANY TIMES (also, EVERY LITTLE WHILE). Touch forearm of left several times with side of tip of extended index of right hand, commencing near left wrist and moving hand towards elbow. Also means: **OFTEN, ALL THE TIME, WHILE.**

MEDICINE (meaning: mysterious and unknown, Great Spirit or God). Move hand upwards while turning from right to left.

MEET (to). Hold hands opposite each other, pointing upwards; bring the hands towards each other until tips touch.

MONEY. Contrast with **SUN**.

MOTHER. With partially curved compressed right hand give two or three gentle taps or pluckings at left breast.

NOON. Make sign for **SUN** to show position of sun overhead.

NOW. Bring extended index finger of right hand about 8 inches in front of face, and without stopping carry it quickly several inches to front, stopping with a rebound.

OLD (meaning: walking with a stick). Repeat motion.

PEOPLE. Hold up both hands close in front of breast.

ROPE. Hold hands as in **AFTER**; then with tip of right index make a spiral curve while drawing right hand to rear.

SHARP. Lightly touch lower edge of right hand with ball of left thumb; then make sign for **GOOD**.

SING. Hold right 2 fingers in front of mouth; make sign for **ALL**.

SIT or REMAIN. Hold closed right hand in front of and little below right shoulder; then move hand downward several inches.

SILENT. Place tips of fingers of right hand over lips.

SNAKE. Move right forefinger, waist high, with a wavy motion.

SNOW. Hold extended hands in front of face, fingers pointing downward, lower in circular zigzags, to indicate whirling snow.

STEAL (meaning: take from). The left hand indicates secrecy.

STRONG. Hold right fist above left fist and strike over and downwards with twisting motion as if breaking a small stick.

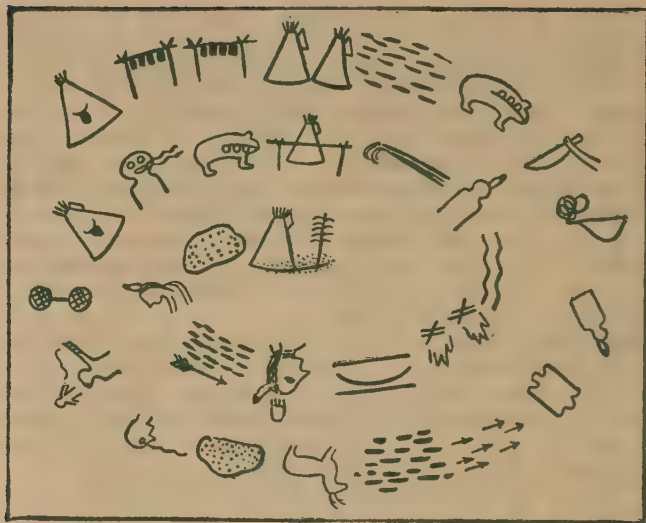
SWIM. Make the sign for **WATER**; then swim with the arms.

TASTE. Touch the tongue with tip of right index.

THINK. (meaning: drawn from the heart). Compare with **KNOW**.

WANT (meaning: give me). Move hand in slight curve downwards, outwards and upwards; turning hand by wrist action.

WORK. Bring flat hands in front of body edgewise, few inches apart, right hand higher and back of left; then raise and lower the hands by wrist action, to indicate working.



Interpretation of Above Pictographic Story

(Story begins in the center)

During the great famine of 1787 the Indians were forced, for a time, to live on acorns, so a great many Sioux, in desperation, organized a big hunt and started out headed by their Chief, White Bear. The weather was clear, fine hunting weather. The first night out they camped by a river. The Chief was filled by fear of famine to his tribe, and his heart was very sad. He therefore called his council together and told them they must go to the Medicine Lodge and make Hunting Medicine for two days and nights. At the end of that time a friendly Cheyenne Indian by the name of Drags-the-Rope came into camp and said that he had seen a great many antelope. They believed him and a large party went out on the hunt and secured a large amount of antelope meat. The Chief, however, was disabled. A wild horse was dragging a rope which caught him, but he drew his knife and cut the rope and was saved, and all the tribe was happy. They went back to the village and took the antelope meat along. Then they all went to the Medicine Lodge and gave thanks for the successful hunt.—*From "Universal Indian Sign Language," by William Tomkins.*

Manual Alphabet for the Deaf.

(See page 161.)

Requirement No. 5

"Make a round trip alone (or with another Scout) to a point at least seven miles away (fourteen miles in all), going on foot, or rowing boat, and write a satisfactory account of the trip and things observed."

This trip need not be made in one day but may be an overnight hike if desired—going out one afternoon and back in the next morning. It is recommended that somewhat unfrequented routes be followed so that the Scout may better observe (and record) the wild life encountered. All special nature items should be carefully noted for the report.

Of course no lifts or rides are accepted. The material for map test is sometimes gathered on this trip.



DAN BEARD'S RECIPE FOR SCOUTING



"Uncle Dan"

"Take a bowl full of unbounded love for boys, one pint of absolute faith in American institutions, two tea cups of American pioneer blood, one tablespoonful of thrills, one tablespoonful of romance, two heaping tablespoons of adventure, a teaspoonful of Indian traditions, a tea cup of vigor and grit of the Puritans, a tea cup of chivalry of the cavaliers, a quart of the idealism of Thoreau, John Burroughs and Henry Van Dyke, one heaping cup of sentiment, the whole seasoned well with patriotism and character and stirred up with the Golden Rule, after which sprinkle well with the Stars and Stripes and SERVE RED HOT!"



Requirement No. 6

(i) "Review Second Class First Aid requirements. (ii) Describe methods of panic prevention, what to do in case of (iii) fire, (iv) ice, (v) electric and (vi) gas accidents; (vii) what to do in case of a mad dog bite, or snake bite. Demonstrate the treatment, including dressing where necessary, (viii) for a fracture, (ix) poisoning, (x) apoplexy, (xi) heat exhaustion, (xii) sunstroke, (xiii) frost bite and freezing; also demonstrate the treatment for (xiv) sunburn, (xv) ivy poisoning, (xvi) bee stings, (xvii) nose-bleed, (xviii) ear-ache, (xix) grit or cinder in the eye, (xx) stomach-ache; (xxi) demonstrate transportation of the injured; (xxii) demonstrate the triangular bandage on the head, eye, jaw, arm (sling), chest, fractured rib, hand, hip, knee, ankle and foot. (Roller bandages may be substituted on arm and ankle). (xxiii) Demonstrate how to make and apply a tourniquet."

First Aid for First Class Scouts

Approved by the American Red Cross

(1) First of all a Scout should frequently review the Second Class First Aid.

(See pages 116-132)

(II) Panics and Their Prevention

1—Note all exits as you enter a building.

2—In case of Fire or Storm HAVE PERFORMANCE GO ON.

3—Reassure crowd. Tell them to take their time—not to crowd and all can get out easily and quickly.

4—Have crowd use ALL EXITS instead of crowding a few.

5—Outside, have some one keep them moving AWAY from exits.

6—School buildings can be emptied in orderly fashion in a few seconds. So keep cool—do the same here.



(III) Fires and Their Prevention

Fire and fire fighting cost each man, woman and child \$4.56 each year, or over \$18.00 per family.

The economic waste by fire in the United States amounts to \$250,000,000 yearly, not to mention loss of life. At least 50 per cent of these fires are preventable.

Causes

Carelessness, smoking, reading in bed with artificial light, drying clothes before a fire, hot ashes or coals in boxes or barrels, explosions of kerosene, gasoline, cleaning fluids, gas, gunpowder.

Always break a match before throwing it away—a north woods rule which gives match time to go out.

Always clear grass and leaves from around campfire—then **PUT THE FIRE OUT**—to fail is criminal.



Always be certain that no fires are built on humus in old forests. Fire will creep below surface and cause forest damage when you have gone.

Be a Good Camper—put out fires.

How to Put Out Burning Clothing

If your clothing should catch fire do not run for help, as this will fan the flames.

Lie down and roll up as tightly as possible in an overcoat, blanket, rug, or any woolen article—or lie down and roll over slowly, at the same time beating the fire with the hands.

Smother the fire with a coat, blanket, or rug.

Remember that woolen material is much less inflammable than cotton.



What to Do in Case of Fire

A fire can usually be put out very easily when it starts, and here is an occasion when a Scout can show his presence of mind and coolness. At first a few buckets of water or blankets or woollen clothing thrown upon a fire will smother it. Sand, ashes, or dirt, or even flour, will have the same effect.

In country districts Scouts should organize a bucket brigade, which consists of two lines from the nearest water supply to the fire. Scouts in one line pass the buckets, pitchers or anything else that will hold water, from the one to another till the last Scout throws the water on the fire. The buckets are returned by the other line.

Turn in fire alarm. When firemen come, help them as they direct—do not try to replace them. If necessary to enter building to save life, in absence of firemen, crawl downstairs backward if the air is bad, **close the windows or door after you, and leave some responsible person to guard it, so it will not be opened and cause a draught.** In searching for people, go to the top floor and walk down examining each room as carefully as possible. If necessary to get air while making the search, close the door of the room, open a window, and stick the head out until a few breaths can be obtained. Afterward close the window to prevent a draught. If doors are found locked and you suspect people are asleep inside, pound on doors to arouse them. If this produces no results, you will have to quickly break down the door. While searching through a burning building it will be best to tie a wet handkerchief or cloth over the nose and mouth. You will get a little air from the water.

Remember the air within six inches of the floor is freer from smoke, so when you have difficulty in breathing, crawl along the floor, with the head low, dragging any one you have rescued behind you.

How to Drag an Insensible Man

Tie a neckerchief around the patient's wrists. Drag the patient as indicated. Crawl out on all fours.

Fireman's Drag

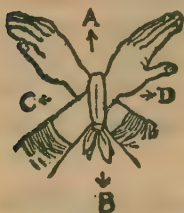


Fig. 1



Fig. 2

Fig. 1—Handkerchief tie from A to B; never C to D.

Fig. 2—Carrier thrusts his head through loop formed by victim's arms and crawls forward.



Fig. 3

Fig. 3—Raising the victim rescuer puts his right or left hand through loop, turns around and is then in position, Fig. 4, for the carry.



Fig. 4

Jumping

Never jump from a window unless the flames are so close to you that this is the only means of escape.

If you are outside a building, put bedding in a pile to break the jumper's fall, or get a strong carpet or rug to catch him, and have it firmly held by as many men and boys as can secure handholds.

Fire Prevention on the Farm

In addition to the foregone suggestions:

1—See that no paper, clothing, straw, oil rags, or dry tinder material is left near gas engine, electric motor, or tractor, where ignition system may cause a fire. If sand or soil is placed near points of "ignition" it will give a zone of safety.

2—Always place or hang a lantern where it cannot be upset or knocked down by the farm animals.

3—See that all electric wiring in the barn is carefully insulated where contacts of wire with other metal or boards or with hay are at all possible.

4—Protect your haystacks, straw, and grain stacks by plowing a few furrows around them, and at a distance, to insure against the field fire flames leaping to hay or straw.

5—If water, under pressure, is available to the farm, then a hose with good spray nozzle should be kept in definite readiness for quick use in case of fires.

6—If fire cannot be gotten under immediate control then, first, get all of the horses, cows, sheep, hogs, and poultry out of the barn. Cattle and horses will have to be blindfolded to get them out of stalls or pens.

7—Every farmer should have his buildings, stock, machinery, and feeds insured. This is one of our best protection measures, and may save a total loss of one's savings of a life time.

8—In the placement of buildings, hay, straw, and grain stacks, be sure to protect one unit against the others in case of fire. Place barrels, tubs, tanks, and pails of water near all buildings where they will be available in case of a fire.

9—No striking of matches, or smoking should be permitted in and around barns where straw and hay feeds are kept. Smokers working around dry bedding and hay barns are responsible for most of our barn fires.

(IV) Ice Rescue

Before trying to rescue a person fallen through ice, if possible tie a rope around yourself, the other end being tied securely or held on shore. Do not attempt to walk out to victim. Push out to him or crawl out on a long board or rail or tree trunk. The person in the water should never try to crawl up on the broken ice, but should try merely to support himself and wait for help, if it is at hand.

(V) Electric Accidents

(Scouts! Read carefully paragraph on Wires, page 179)

The third rail is always dangerous. Never touch it or any swinging or fallen wires which may be in contact with a live wire. Be careful not to touch the bare flesh of the person in contact with the wire, unless your hand is insulated, or **otherwise the deadly current will be transferred to yourself.** As you must think and act quickly you will have to use the things at hand. Several thicknesses of a newspaper or other dry paper wrapped around your hand make a good insulation, a dry wool cap, a felt hat, vest or small coat, used as a glove is good insulation; taking hold of the coat tails of a man, the skirts of a woman if dry, and pulling the patient off the wire with a quick jerk is quite safe. Flexible rubbers may also be used as gloves. Of course, if at hand, rubber gloves, a rubber coat, mackintosh or rubber

sheeting may be used. If the ground or pavement is wet try to get a plank or dry board to stand on, unless you are wearing rubbers, in which case it is unnecessary.

In removing the live wire from the victim or the victim from the wire, do it with one motion as otherwise greater shock and burning will result. If the wire is lying on the victim it may be flipped away with a dry stick or wooden handle. The wire can be quite safely chopped or cut by an axe or hatchet with a dry wooden handle. If at hand the sleeve of a dry coat



may be used to lasso the wire by holding the other sleeve and whipping or twisting the free one around the wire. A dry rope can be used in the same manner. Avoid getting any nearer than 18 inches to the wire. If the accident occurs in a plant or building near a switch, pull the switch.

There has been an actual case where a man has been shoveled off a wire with a dry, long handled shovel.

What to Do for Electric Shock

Always send for a doctor, but do not wait for him. Treatment should be given even if the man appears to be dead. Speed in beginning treatment is of as great importance as in cases of apparent drowning. Delay may mean death. Loose the clothing around the neck and body. If necessary restore breathing by artificial respiration as in drowning. Striking the soles of the feet repeatedly quite hard, while the artificial respiration is being administered, is of additional value.

(VI) Prevention of Gas Accidents

The commonest gas encountered is the ordinary illuminating gas. To prevent such gas from escaping in dangerous quantities, leaks in gas pipes should be promptly repaired. Be careful in entering a room filled with gas to cover the nose and mouth. Do not light a match in it. Be careful to turn off gas jet burning faintly when you retire, as it may go out if pressure in the gas pipe becomes less, and if pressure is afterward increased gas may escape into the room. It may also be blown out by a draft.

Coal gas will escape from red-hot cast-iron stoves and very big fires in such stoves are dangerous, especially in sleeping rooms. Charcoal burned in open vessels in tightly closed rooms is especially dangerous.

In underground sewers and wells other dangerous gases are found. If a lighted candle or torch will not burn in such a place, it is very certain the air will be deadly for any person who enters.

Recently, a great many deaths have resulted in the winter from people leaving the doors of the garage closed tightly, and the engine running, while they were cleaning and tinkering with their automobiles. These deaths occur from carbon monoxide poison, a very deadly gas, and very insidious.

To rescue a person found in a room filled with gas or smoke, the Scout should crawl in on his hands and knees, keeping his head touching the floor, because all the good air left in the room is down near the floor. When he gets to the person who is lying unconscious from the gas, the Scout should use the fireman's drag. It is always best for two persons to work together in those cases. Learn method of resuscitation.

(VII) Snake Bite

Is the Snake Poisonous?

The bite of a non-poisonous snake leaves a U-shaped row of tooth prints, or several long scratches, if the bite has been glancing. A poisonous snake "strikes" straight, and leaves two punctures made by the fangs. Unless you are *sure* that a snake is not poisonous, better treat its bite as below.

First Aid Treatment

Snake poison is a chemical substance which spreads rapidly in the circulation. Unless positive that the snake is harmless, do this instantly.

(1) **Quickly apply tourniquet** (shoe-lace, necktie, bit of cloth, belt, neckerchief, rope, etc.), an inch and a half to two inches above the wound. The tourniquet should not be tight enough to stop blood from coming into the part.

(2) **Quickly make the wounds bleed**, lay open each fang hole with an X-shaped cut made by a *sharp* knife; squeeze gently and rub toward wound to encourage bleeding; suck wound (if there are no sores in your mouth) and spit out the poisoned blood.

(3) **Keep quiet**; keep the part bitten as still as possible, for muscle movement favors circulation and the spread of the poison.

(4) **Quickly get a doctor's aid.**

(5) **Wet dressings** tend to keep the wound draining.

(6) Only pit vipers are poisonous, and only about three out of five carry enough venom to prove fatal. They frequently lose even this in striking through clothing or shoe leather. The four vipers or poisonous snakes of North America in order of deadliness are: the rattle snake, the copper head, the cotton mouth moccasin and the coral snake.

Mad Dog Bite

The Important Thing

The vital thing to find out in any case of dog bite is whether the dog is mad, whether he has hydrophobia or rabies.

A "mad" dog is not angry, but is sick with a disease (rabies or hydrophobia), that will surely kill him within a few days.

The afflicted animal is consumed with thirst and tends to bite the first thing he encounters. If attacked by an animal, thrust a hat, coat or stick at him, and let him bite that, and in the meantime either kill him, or try an escape—call the police.

Some "mad" dogs are active, run about aimlessly, look and act sick, may have "fits," may bite any man or animal that gets in their way, may drip saliva from their jaws; others are paralyzed early in the disease, do not bite, but may infect a scratch or wound on your hand by licking. (Use gloves.)

Treatment of the bite is not an emergency, as in snake bite, for the disease takes twelve days to several months to develop in humans. Attend to the dog first, then to the person bitten.

For the Dog

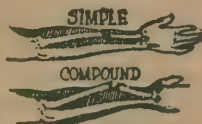
If you suspect that a dog (or cat) may be "mad," shut him up somewhere for observation by the Board of Health or the Society for the Prevention of Cruelty to Animals; if he recovers in a few days, then he was not "mad"; if he dies, consult the Board of Health. If it is

necessary to kill the animal, send his body, packed in ice, to the nearest Board of Health for examination. Do not kill the dog unless necessary.

The bite of any animal should, of course, be treated like any wound. Encourage bleeding for a while; use an antiseptic, cover with sterile dressing. If there is ANY SUSPICION AT ALL that the animal (dog, cat, wolf) is "mad," see a doctor AT ONCE, have him cauterize the wound, and follow his advice about taking the Pasteur treatment. **Remember.** Rabies is easily prevented; never cured.

(VIII) Fractures of Two Kinds for First Aid Work—Simple and Compound

Definition—A simple fracture is one in which the bone is broken but which does not break the skin.



In a **compound fracture** the bone is broken and the skin and tissue are punctured or torn. A fracture due to a bullet is of course a compound fracture, the bullet piercing the skin and breaking the bone. A simple fracture may be converted into a compound fracture by careless handling, as a broken bone usually has sharp, saw-tooth edges, and just a little twist may push it through the skin.

Symptoms—Pain and extreme tenderness—probable inability to move the limb—limb may be shortened or lengthened.

In compound fracture bleeding and broken tissue will present problems.

First Aid—Get a doctor! DO NOT MOVE patient without supporting broken member by splints. In compound fracture, bleeding must be checked—by bandage over compress, if possible—by tourniquet, only in extreme cases where flow of blood cannot be otherwise checked. THEN splints may be applied. Scout First Aid to fractures is only until doctor can be secured.

Where skin is broken, INFECTION is the great danger, so exercise care that compress or dressing is sterile and clean. Painting the wound with mercurochrome is good.

DISLOCATION

Definition—A dislocation is an injury where the head of a bone has slipped out of its socket at a joint.

Symptoms—Looks unlike joint on other side. Pain; movement impaired. In case of shoulder, patient cannot place elbow snugly to his side.

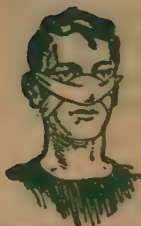
First Aid—Do not attempt to replace the joint. Get a doctor! Even thumb and finger dislocations are more serious than usually realized. Cover the joint with cloths wrung out in very hot or very cold water. Splint as in broken bones to prevent motion and pain. For shoulder—apply cold applications to the shoulder, put on a well-fitting arm sling and get the person to a doctor or hospital as soon as possible.

Splints

Splints are used for broken and suspected broken bones, to prevent them from moving at the point of fracture, and at the nearest joint. They must be of stiff material. Improvised splints may be made from pieces of wood, broom, pick or shovel handles, rules, lathes, heavy cardboard, canes, umbrellas, straw in bundles, cornstalks, newspaper roll, etc.

In making a splint always remember that, besides being firm and stiff, it should be long enough to prevent movement at the joints on both sides of the fracture, and, if possible, it should be as wide as the thickness of the limb to which it is applied. Splints should be well padded with some soft material on the inner side and at the ends that come in contact with the body. Clothing sometimes, when not removed from the injured part, answers this purpose. Cotton, wool, leaves, sawdust, or any soft material may be used for padding.

Fractures—Bandages and Splints



Fractured Nose

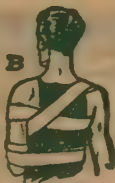
A
Jaw Fracture

B

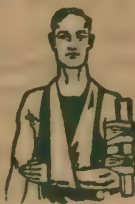


Fractured Rib

For the nose the bandage is split. There are two bandages for jaw and three for rib.

A
For the Collar Bone

B



Upper Arm



Forearm and Wrist



For the elbow, the splint should be L shaped. It may be made by nailing or tying two boards together carefully.



Fracture of Knee Cap

A padded splint about 4 inches wide should be applied to the back of the leg, extending from the middle of the thigh to 1 inch beyond the heel. Extra padding should be put under the knee and above the heel.

Fracture of the Leg

Here two splints are used, one on the outer and one on the inner side of the leg, extending from a little beyond the heel to three inches above the knee.



Fracture of the Leg

Fractured Thigh

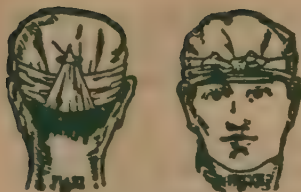
In this fracture two splints are required, one to extend from the heel to under the armpit on the outer side, the inner splint to extend from the heel to the crotch. These splints should be about 4 inches wide and $\frac{3}{4}$ of an inch thick. Seven triangles are required to fasten this splint. If only one thigh is broken and a long splint cannot be obtained, in an emergency you may use the inner splint, i.e., from the heel to the crotch and tie the two legs together with triangles, also tie the feet. This fracture carries a good deal of shock, and the injured person should be well covered and transported very carefully.



Splints for Fractured Thigh, Knee
Cap and Leg

Fracture of the Skull

Fracture of the skull means a break in a bone, or bones, of the head. The injured person may, or may not, be unconscious. If the base of the skull is broken, bloody serum may flow from the ears, a very fatal sign. Bleeding may be noticed from the eyes, nose and mouth. If there is an open wound, with severe bleeding, check the bleeding by placing a compress over the wound and applying a head bandage, but do not put much pressure on the wound as it might force the broken bones into the brain. In fractured skull some bleeding is bene-



Head Bandage

ficial as it relieves the pressure on the brain. Do not give stimulants. The head should be raised somewhat, and placed on a folded blanket, or coat. This should be always done in all injuries of the head.

(IX) Poisoning

Delay is likely to prove fatal in poisoning, so whatever is done must be done promptly. **Always send for a doctor at once** but do not wait for his arrival. Dilute the poison by giving drinks of anything harmless one has on hand such as water, milk, tea, soda water, dish water, salt water, soap suds, salad oil, milk and eggs, flour water may be used as they protect the walls of the stomach. Fill the stomach. From two to four glasses or even more may be given. Cause vomiting to get rid of poison in stomach. If the fluid administered is distasteful it will automatically cause vomiting, especially if, after having given several glasses of the fluid, you tickle the back of the throat. Excellent emetics are mustard and ipecac, a teaspoon of either may be added to the fluid. After vomiting has occurred give the patient warm water.

(X) Apoplexy and Injury to the Brain

Definition—Apoplexy and unconsciousness from injury to the brain are due to the pressure of blood on the brain so that they may be described together.

Symptoms—Apoplexy is, of course, much harder to distinguish than injury to the brain, as in the latter the Scout can always see that the head has been hurt. With both, unconsciousness will usually be complete. Pupils are large and frequently unequal in size, breath-

ing is snoring, and the pulse is usually full and slow. One side of the body will be paralyzed. Test this by raising arm or leg; if paralyzed it will drop absolutely helpless.

First Aid—Send for a doctor at once. Keep patient quiet and in a dark room if possible. Put in lying-down position with head raised by pillows. Apply ice or cold cloths to head. No stimulants. Drunkenness is sometimes mistaken for apoplexy. If there is any doubt on this point always treat for apoplexy.

(XI) Heat Exhaustion

Definition—Heat exhaustion is simply exhaustion or collapse due to heat.

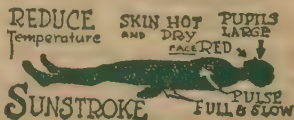
Symptoms—The patient is greatly depressed and weak but not usually unconscious. Face is pale and covered with clammy sweat, breathing and pulse are weak and rapid.

First Aid—While this condition is not nearly as dangerous as sunstroke, a doctor should be summoned. Remove the patient to a cool place and have him always lie down with his clothing loosened. Don't use anything cold externally, but permit him to take small sips of cold water. Stimulants should be given just as in fainting.

(XII) Sunstroke

Definition—Unconsciousness due to exposure to excessive heat.

Symptoms—Sunstroke and heat exhaustion, though due to the same cause, are quite different and require different treatment. In sunstroke unconsciousness is complete. The face is red,



pupils large, the skin is very hot and dry with no perspiration. The patient sighs and the pulse is full and rapid.

First Aid—The treatment for sunstroke consists in reducing the temperature of the body. A doctor should be summoned always. The patient should be removed to a cool place and his clothing loosened, or, better, the greater part of it removed. Cold water, or ice, should be rubbed over the face, neck, chest, and in arm-pits. When consciousness returns give cold water freely.

Any one is liable to sunstroke or heat exhaustion if exposed to excessive heat. More cases result from heat indoors than from that outdoors. A Scout should remember not to expose himself too much to the sun nor should he wear too heavy clothing in the summer. Leaves in the hat will do much to prevent sunstroke. If the Scout becomes dizzy and exhausted through exposure to the sun he should find a cool place, lie down, and bathe the face, hands and chest in cold water and drink freely of cold water.

(XIII) Frost-Bite

Remember that you are in danger of frost-bite if you do not wear sufficient clothing in cold weather, and that rubbing any part of the body which becomes very cold helps to prevent frost-bite, because it brings more warm blood to the surface. The danger is when, after being cold, the part suddenly has no feeling.

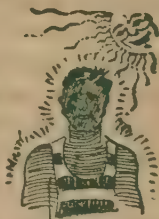
The object of the treatment is gradually to restore warmth to the frozen part. To do this the part should be rubbed first with snow or cold water; the water should be warmed gradually. The use of hot water at once would be likely to cause mortification of the frozen part.

Freezing

The patient should be taken into a cold room and the body should be rubbed with rough cloths wet in cold water. The temperature of the room should then be increased if possible. This should be done gradually and the cloths should be wet in warmer and warmer water. As soon as the patient can swallow give him stimulants. It will be dangerous to place him before an open fire or in a hot bath until he begins to recover. You will know this by his skin becoming warmer, by his better color, and by his generally improved appearance.

(XIV) Sunburn

This is simply an inflammation of the skin due to action of the sun. It may be prevented by hardening the skin gradually. Any toilet powder or boracic acid will protect the skin to a considerable extent. The treatment consists of soothing applications such as ordinary vaseline jelly.



(XV) Ivy Poisoning



Poison ivy causes a very intense inflammation of the skin. Better avoid it, even though it has not harmed you before. A thorough washing of the hands with yellow soap and water or alcohol immediately after touching poison ivy is often of considerable service in preventing the usual inflammation of the skin. Apply a solution of 1 ounce ferri chloride, 1 ounce alcohol and $\frac{1}{2}$ ounce pure water. This is practical as a preventive measure if painted on the hands previous to exposure and is an excellent neutralizing agent. A 5% solution of potas-

sium permanganate is considered of value by experts. In severe cases a doctor should be consulted.

(XVI) Bites and Stings

Ammonia should be immediately applied. Wet salt and wet earth are also good applications.

(XVII) Nosebleed

Slight nosebleed does not require treatment, as no harm will result from it. When more severe the collar should be loosened. Do not blow the nose. Apply cold to the back of the neck by means of a cloth wrung out in cold water. Have patient sit in a chair with the head hung forward.

A roll of paper pressed under the upper lip, between it and the gum, will also help. Apply pressure on either side of the bridge of the nose just above the nostrils. If the bleeding continues for long, plugs of absorbent cotton may be inserted. Leave enough of the plug outside to permit of its removal.

(XVIII) Earache

This is likely to result seriously and a doctor should be consulted in order to prevent bad results with possible loss of hearing. Hot cloths, a bag of heated salt, or a hot bottle applied to the ear will often cure earache. A few drops of alcohol on a hot cloth so placed that the alcohol fumes enter the ear will often alleviate the pain. Don't put oil in the ear.

(XIX) Something in the Eye

If a piece of grit, cinder, or any other object gets into the eye, try if possible to do this: Shut your eye tightly, throw your hands behind your back, clasp them and hold them there till you count sixty slowly. This prevents you from rubbing the eye, and shutting it tightly over

the foreign body causes the tears to accumulate and often-times floats the object down in plain view so that it can be easily removed. If you rub your eye, as it is natural to do, you drive the object deeper in the tissues of the eye, thereby making it more difficult to remove, also greatly increasing the irritation. If this fails pull the upper lid over the lower, two or three times, close the nostril on the opposite side and blow your nose hard. If this also fails, have another Scout, preferably one who has had experience, turn up the lid carefully over a parlor-match or a toothpick, and with the corner of a clean handkerchief, or a wisp of absorbent cotton wound on the end of a match or toothpick, brush it lightly across the object which usually can be seen either on the eyeball or the inside of the lid. A clean piece of rolled tissue paper moistened a little is also safe to use in the eye. Should these methods fail, apply folded clean handkerchief, wet with cold water as a compress over the closed eye and go as soon as possible to the doctor. Never use, or have used in your eye, the blade of a pocket knife, burnt matches, or bare toothpicks, as they are dangerous.

(XX) Cramp or Stomach-ache

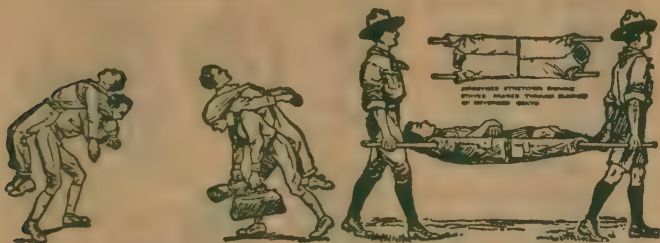
This is usually due to the irritation produced by undigested food. A hot bottle applied to the stomach or rubbing will often give relief. A little peppermint in hot water and ginger tea are both excellent remedies. The undigested matter should be gotten rid of by vomiting, or a cathartic.



Remember this kind of pain is sometimes due to something serious and if it is very severe or continues for some time send for a doctor.

(XXI) Carrying Injured

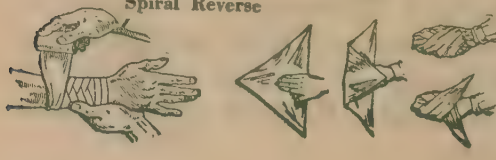
A severely injured person is always best carried on a stretcher. The easiest stretcher for a Scout to improvise in the coat stretcher.



For this two coats (three for a tall boy or man) and a pair of poles are needed. The sleeves of the coat are first turned inside out. The coats are then placed on the ground with their lower sides touching each other. The poles are passed through the sleeves on each side, the coats are buttoned up with the button side down. A piece of carpet, a blanket or sacking can be used in much the same way as the coats, rolling in a portion at each side. Shutters and doors make fair stretchers. In order not to jounce the patient in carrying him, the bearers should break step. The bearer in front steps off with the left foot and the one in the rear with the right. A number of different methods for carrying a patient by two bearers are practised. The four-handed seat is a very good one. To make this each bearer grasps his left wrist in his right hand, and the other bearer's right wrist in his left hand with the backs of the hands uppermost. The bearers then stoop and place the chair under the sitting patient who steadies himself by placing his arms around their necks.

(XXII) Demonstrate Triangular Bandage

(See pages 126—127)

FOREHEAD**FOREHEAD OR TEMPLE****EYE****KNEE****FOREHEAD OR JAW****JAW****CALF AND ANKLE****FOOT****SLINGS****THIGH AND SHOULDER****ARM****CHEST****Spiral Reverse****HAND****PALM**

Grip to form
basket seatTwo-handed
chair carry

Chair carry

"Three bearers' position
for lift"

"Three bearers' lift"



Arm carry

Horseback
carry

(XXIII) The Tourniquet *(pronounced tōōr-ni-kēt)*

The tourniquet is an appliance used to check severe bleeding. As used in Scouting, it consists of a bandage twisted more or less lightly around the affected part. The bandage—a cloth, strap, belt, necktie, neckerchief or towel should be long enough to go around the arm or leg affected—it can then be twisted by inserting the hand, and the blood stopped.

If a stick is used, there is danger of twisting too tightly.

The tourniquet should not be used if bleeding can be stopped without it. (See page 119.) When used it should be carefully loosened every 15 to 20 minutes to avoid permanent damage to tissues.

Scouts should practice as in (I) to see how little pressure is needed to stop the pulse.



Some Typical First Aid Problems

1. On an alarm of "fire" at an entertainment indoors, what different measures would you try out?

2. You enter a hall heavy with gas fumes and hear moans from upstairs. How would you proceed?

3. You find an unconscious person lying within two feet of an electric rail or live wire. What would you do? How would you break contact if necessary?

4. You are called in a case of poisoning; patient refuses to talk but has odor to breath, and you see a small bottle nearby. What actions would you take?

5. Boy climbs a tree and falls, injuring his leg. When he tries to get up his leg will not support him. Show what you would do and explain.

Variations—Somebody at home slips and falls downstairs and breaks leg. Automobile runs over boy's arm and breaks it. Automobile runs over and crushes man's ribs. A boy receives batted ball on tip of finger. Finger is broken and bones stick out through skin. What would you do first? Demonstrate and explain complete treatment.

6. Your catcher gets a foul tip on the finger and you see a swelling right at the joint, and the finger is held stiff. What is probably the matter and what will you do about it?

7. On a hot summer day you find a man in his bakery sitting collapsed in his chair; sweating and very pale; unable to talk. What do you think is the matter, and how can you help? (Vary with freezing, heatstroke, etc.)

8. How would you recognize a "drunk" and what could you do for him?

9. Demonstrate triangular bandage. (Examiner should require at least three different demonstrations.)

10. Demonstrate splints for fractured thigh bones, (other fractures).

11. Demonstrate tourniquet on arm, on leg.

12. How would you help in case of a mad dog bite? How in snake bite?

13. Describe apoplexy and Scout First Aid for it. Heat stroke. Heat exhaustion. Freezing.

14. How treat insect bites and stings? Nose bleed?

15. How treat earache, grit in eye, "cramps," toothache, and chills?

16. Demonstrate Chair (4 hand) Carry, Fireman's Drag, Blanket Stretcher, Coat Stretcher.



Requirement No. 7

“Prepare and cook satisfactorily, in the open, using camp cooking utensils, two of the following articles as may be directed; Eggs and bacon, hunter’s stew, fish, fowl, game, pancakes, hoe-cake, biscuit, hardtack, or a “twist,” baked on a stick, and give an exact statement of the cost of materials used; explain to another boy the method followed.”

In fire building, on page 166, the Scout has already met several kinds of fires—now comes the time to USE them.

The Scout should be able to cook as many as possible of the dishes cited. For his test he must cook palatably any two before the Scoutmaster or examiner.



Eggs

Boiled: Heat water to boiling point. Place eggs in carefully. Boil steadily for three minutes if you wish them soft. If wanted hard boiled, put them in cold water, bring to a boil, and keep it up for twenty minutes. The yolk will then be mealy and wholesome.

Fried: Melt some butter or fat in frying-pan or on piece of tin or metal; when it hisses drop in eggs carefully. Fry them three minutes.

Scrambled: First stir the eggs up and after putting some butter in the frying-pan, stir the eggs in it after adding a little milk.

Poached: Bring a frying pan of water to boil and drop in your eggs being careful not to break yolk. Serve on toast when egg has hardened to the desired state.

Bacon

Cut quite thin and remove rind. Some like to parboil it first, but this is not necessary. Drop slices in warm frying pan or on piece of tin or thin rock. Bacon can be fried on a sharp stick over hot coals. A “nest” of three or four slices of bacon with the egg, in the centre, and over the bacon edges is “not hard to take.”

Hunter's Stew

To make a hunter's stew, chop the meat into small chunks about an inch or one and one-half inches square.



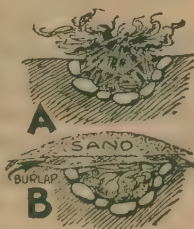
Then scrape and chop up any vegetables that are easily obtained—potatoes, turnips, carrots, onions, etc.; and put them into the mess kit, adding clean water, or soup, till the mess kit is half full. Mix some flour, salt, and pepper together and rub the meat well into the mixture, then place this in the mess kit or kettle, seeing that there is just sufficient water to cover the food—and no more. The stew should be ready after simmering for about an hour and a quarter.

Fish

Clean well. Small fish should be fried whole with the back bone severed to prevent curling up; large fish should be cut into pieces, and ribs loosened from back bone so as to lie flat in pan. Rub the pieces in corn meal or powdered crumbs, thinly and evenly (that browns them), fry in plenty of hot fat to a golden brown, sprinkling lightly with salt just as the color turns. If fish has not been wiped dry it will absorb too much grease. If the frying fat is not very hot when fish are put in, they will be soggy with it.

Fowl

Fish, fowl, rabbits, small pigs may be cooked without utensils in a hole in the ground. A hole a foot and a half each way, and the same depth, is lined with stones—then the hole is filled with kindling and twigs and over it a criss cross two foot pile of two to three inch hardwood. In perhaps an hour the wood has burned and the hole is full of hot stones. Rapidly clean out the embers, put on a heavy layer of sweet leaves (basswood, sweet gum, wild grape, maple, sassafras or vegetable tops). Place the chicken or fish on these leaves in the centre of the hole with any potatoes, corn on the cob, close to the fish or fowl or animal—THEN cover with leaves and stones spread over it with wet canvas or burlaps and then cover it completely with earth. In a couple of hours this IMU is ready! Come quickly! !



Game

After game has been bled, skinned and drawn—it may be boiled, “imued,” fried, or broiled.



A simple broiler can be made from a long forked green twig, or meat can be broiled on a few green sticks over a small fire of coals.



Green Sweet Corn

1. Roast direct on long stick over the coals.

2. Bake in ashes (like potatoes) after first cleaning out silks, then twist husks on tightly again and bury. In about an hour—come and get it! (See Page 255)



3. Boil 30 minutes in enough salted water to cover.

4. When too hard to use as green corn, it may be grated and the grating salted and baked in little patties (old corn may be used if first soaked overnight in water).

Mutton or Lamb Chops (or Pork)

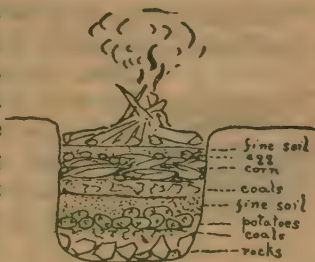
These can be cooked in their own grease. Rub the hot pan (or piece of tin or flat stone) with the fat of the chop and then put in and salt as it begins to turn slightly red on top. Turn and repeat salting process. Continue turning until done to suit. The juice will butter your bread. The fireplace is made as follows: With the heel make a small trench in the direction the wind is blowing. Use small dry twigs and small fire.



Seneca Indian Dinner

One time a Seneca friend named Moses Shongo, one of the finest men I ever knew, told me how to prepare a big meal for a crowd with the least labor. One must dig a hole in the ground about two feet deep, line the bottom with rocks and allow a hot fire to burn in this hole for an hour. Since potatoes cook slower than corn, these are placed in the coals, covered with two inches of moist earth, and another fire built on this, which lasts perhaps half an hour. Then ears of corn with the husks on are laid as thick as possible in the coals, with eggs placed on top carefully, and covered with two inches of moist earth again. Once more a fire is built and maintained for an hour. When the coals have nearly died out the feast supply is ready to be opened. You may ask why Indians used chicken eggs, when these fowl are not native of America? But the answer is that the custom began long ago by using sea-gull eggs, also wild turkey, duck, grouse and even crow.

—Ralph Hubbard.



Kabob

James A. Wilder of Honolulu cuts hammered flank steak into pieces about an inch in diameter and strings them on a small sharp stick perhaps alternating an onion slice—he rolls it in a bit of flour and THEN after searing it close to the fire he salts it and turns till ready! It's glorious! Try it.

(See Page 167)

Roast Potatoes

Wash and dry potatoes thoroughly, bury them deep in a good bed of coals, cover them with hot coals until well done. It will take about forty minutes for them to bake. Then pass a sharpened hard-wood sliver through them from end to end, and let the steam escape and use immediately, as a roast potato soon becomes soggy and bitter.



Stale Bread

If it has not moulded can be dipped quickly in water—then put in oven to freshen, or may be toasted and put in hot (but not boiled) milk with a bit of butter and a pinch of salt, or it may be fried (French Toast) after dipping slices into eggs whipped with $\frac{1}{2}$ cup milk for each egg and a little dash of salt.

Pancakes

Beat one egg, tablespoonful of sugar, one cup diluted condensed milk or new milk. Mix enough self-rising flour to make a thick cream batter. Grease the griddle with rind or slices of bacon for each batch of cakes. Be sure to have the griddle hot.

Biscuit

In general, biscuit or other small cakes should be baked quickly, by a rapid or ardent heat; large loaves require a slower, more even heat, so that the outside will not harden until the inside is nearly done. For a dozen biscuits use:

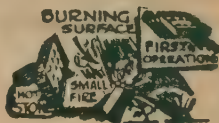
$1\frac{1}{2}$ pints flour.

$1\frac{1}{2}$ heaping teaspoonsful baking powder.

$\frac{1}{2}$ heaping teaspoonful salt.

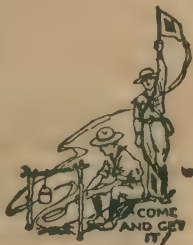
1 heaping tablespoon cold grease.

$\frac{1}{2}$ pint cold water.



The amount of water varies according to the quality of flour. Too much water makes the dough sticky and prolongs the baking. Baking powders vary in strength; the directions on the can should be followed in each case.

Mix thoroughly with a big spoon or wooden paddle, first the baking powder with the flour and then the salt. Rub into this the cold grease (which may be lard, cold pork fat or drippings) until there are no lumps left and no grease adhering to bottom of the pan. This is a little tedious, but it doesn't pay to shirk it; complete stirring is necessary for success. Then stir in the water and work it with the spoon until the result is rather a stiff dough. Squeeze or mold the dough as little as possible; because the gas that makes the biscuit light is already forming and should not be pressed out. Do not use the fingers in molding; it makes biscuit "sad." Flop the mass of dough to one side of the pan, dust flour on bottom of the pan, flop dough back over it, and dust flour on top of the loaf. Now rub some flour over the bread board, flour the hands, and gently lift the loaf on the board. Flour the bottle or bit of peeled sapling which is to be used as a rolling pin, and also the edges of the can or can cover to be used as biscuit cutter. Gently roll the loaf to three quarters of an inch in thickness. Stamp out the biscuits and lay them in the pan. Roll out the culls or leftover pieces of dough and make biscuits of them, too. Bake until the front row turns brown; reverse the pan and continue until the rear row is similarly done. Ten to fifteen minutes is required in a closed oven, and somewhat longer over the camp-fire or camp earth or stone oven.



“Twist” Baked on a Stick

Work the dough, prepared as for biscuit, into a ribbon two inches wide. Get a club of sweet green wood (birch, sassafras, poplar, or maple) about two feet long and three inches thick, peel the large end, and sharpen the other and stick it into the ground, leaning toward the fire. When the sap simmers wind the dough spirally around the peeled end. Turn occasionally while baking. Several sticks can be baking at once. Bread enough for one man's meal can be quickly baked in this way on a peeled stick as thick as a broom-stick, holding it over fire and turning it from time to time.



Take bread and crackers with you for camp. Pack butter in small jar; cocoa, sugar, and chocolate in small cups or heavy paper; also salt and pepper. Wrap bread in a moist cloth to prevent drying up; bacon and dried or chipped beef in wax paper. Pickles can be purchased put up in small bottles. Use the empty bottle as candle-stick.

Unleavened Bread

Can be made quickly and will keep almost indefinitely.

2½ pints of flour.

1 scant tablespoonful of salt.

1 tablespoonful of sugar.

Mix with water to a stiff dough and knead and pull. Roll out thin like crackers and mark into squares with knife. Use as little water as possible if you want it to “keep.” A teaspoonful of lard or butter worked in with the flour is good but reduces the “keeping” qualities.

Corn Batter Bread

- 1 pint fresh corn meal.
- 2 pints milk (or water).
- 2 eggs.
- 1 teaspoonful salt.

Beat the eggs until light, add salt, then the meal and milk a little at a time until thoroughly mixed. A spoon of butter or lard will add somewhat to the flavor. Bake about half an hour.

(Hoecake may be made by omitting the eggs and frying the cakes on both sides. Carefully cleaning and greasing the pan each time.)

Clam Bake

Build large criss-cross fire over two feet high. Distribute stones in the pile of wood. When the fire burns down, cover the hot stones with damp sea weed (not too wet)—then lay on the clams—cover the entire pile with sea weed and let them steam some twenty minutes for little necks and twice that long for round clams.

Steamed Fish

Place the large stones heated as for clam bake in a hole some two feet deep and wide enough for your fish.

Fill the hole with hot stones nearly to the top, then put on a layer of cold stones, on these lay your fish ready to cook. It may be tied to a non-resinous board which would then be turned "fish side down" or similarly protected before covering the whole thing with clay or earth.

Make a hole into the pit with a stick and pour in half a bucket of water. Close up the hole and let it steam.

Half to three-quarters of an hour will steam your fish.

Requirement No. 8

“Read a map correctly, and draw, from field notes made on the spot, an intelligible rough sketch map, indicating by their proper marks important buildings, roads, trolley lines, main landmarks, principal elevations, etc. Point out a compass direction without the help of the compass.”

Map Reading and Map Making

By F. E. MATTHES
U. S. Geological Survey

(What a Scout should know about maps.)

In this age of travel, by land, water, and air, a person who can not read a map well enough to find his way with the aid of one is at a great disadvantage. Certainly a Scout should be able to read the simple road maps that are being used nowadays by motorists, but he should also learn to understand *topographic* maps, such as are issued by the U. S. Geological Survey. Likewise Sea Scouts should be able to read the *charts* of coastal waters which are prepared by the U. S. Coast and Geodetic Survey.

Map Reading (Symbols)

The first thing to do is to familiarize yourself with the different symbols, or conventional signs used on maps.

(See pages 263, 265)

Scale

Always look first for the scale, otherwise you won't know whether an inch on the map represents 100 feet or 10

miles. The scale is placed usually on the lower margin. It may be given:

a. In the form of a ratio or fraction, as for instance, 1:24,000, or $1/24,000$.

b. In the form, 2,000 feet to the inch; two inches to the mile, etc.

c. The scale is always given also in the form of a bar, or line, divided into lengths representing miles, thousands of feet, or other units. The bar scale is useful for the scaling off of distances on the map.

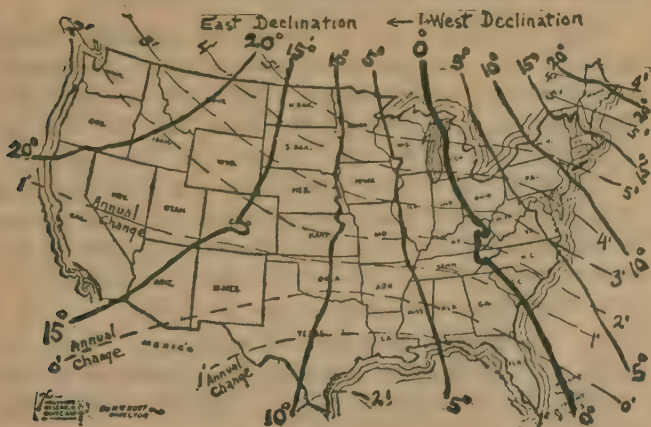
Direction of North

The top of a map is not invariably the north side.

On all modern maps, however, the direction of *true north* is shown by an arrow or a simple line.

Why, you may ask, does not the compass needle point to the true north? Because it is attracted by the *magnetic poles* of the earth, and these do not coincide with the *geographic poles*, which are the points through

Chart of Compass Declination



which the earth's axis of rotation passes and to which all the meridians converge. The *north magnetic pole* is about 1,400 miles distant from the north pole, being situated on the northern edge of Canada,—to be precise, near the western coast of the Boothia Peninsula. The south magnetic pole is situated approximately the same distance from the south pole, in the Antarctic Ocean.

Because the north magnetic pole is so much nearer to us than the north pole, the compass needle points to the west of true north in the eastern parts of the United States, and to the east of true north in the western parts.

Inasmuch as the north magnetic pole is slowly migrating northwestward the magnetic declination in all places in the United States will change in the course of time. The western declination in the eastern states will increase, the eastern declination in the western states will decrease. It is thus necessary on any map to give the particular year for which the figures hold good. The figures quoted above are for 1925. The annual variation is shown on the map.

How to Orient a Map (Finding North)

Suppose you are lost in the woods, so badly “turned around” that you can not decide in which direction to travel in order to reach camp. There are several mountain tops in view through the trees, but you can not identify them. You carry a map of the region on which these mountains are shown, but even this map will not help you in identifying them until it is properly oriented,—that is to say, turned so that its meridians actually point to the north. By what methods can you determine north and orient the map?

a. **By means of a pocket compass.** Turn the map until its **magnetic north line** points in the direction of the compass needle. Do not use the true north line. Remember that in many parts of the coun-

SYMBOLS USED ON MAPS.



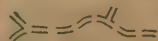
Roads and
houses



Canal with
locks

Fences

Barbed wire



Private and
poor roads



Streams

Smooth wire

Rail or worm



Trails



Springs

Board Picket



Railroads and
stations



Lake or pond

Stone wall

Hedge



Electric R.R



Church

Prospect



School
house

Mine or
quarry



PO

Mineshaft



Tunnel

Post Office

Oil well



TO

Bridges



Telegraph or
telephone

Telegraph Office

HOS

Hospital

General
symbol



Power line



Cemetery

Draw

Truss

Arch



Windmill

Suspension

Foot

Political
boundaries

Camp

Ferry

Ford

try the difference between magnetic north and true north is considerable.

b. By means of a watch and the sun.

Hold the watch flat with face upward. Hold a match or small straight stick upright at the edge of the watch and at the outer end of the hour hand. Turn until the shadow of the stick falls along the hour hand—which hand will then point toward the sun—THEN

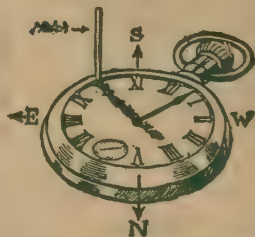
In the morning South will lie half way between the hour hand and XII (forward).

At noon South will lie directly along the hour-hand-shadow line.

In the afternoon South will also lie half way between the hour hand and XII (backward).

Why?

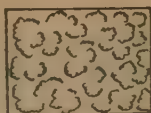
A day is 24 hours—the watch dial has but 12. From sunrise to noon the sun covers 1-4 of its circle, your watch covers about 1-2 (6 a. m. to noon). 2 hours in the sky circle then corresponds to 1 hour on the watch circle.



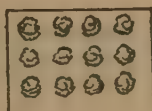
The sun will give you **true north**, therefore orient with the **true north line** on the map. Remember that if your watch is set for daylight saving time, it is really one hour fast.

c. By means of the north star. The north star indicates very closely, though not exactly, the **true north**, being situated almost in line with the axis of the earth. For that reason it is known also as the **Pole Star or Polaris**. You should be able to locate it without fail both by the Great Bear constellation (the Big Dipper) and by Cassiopeia. When either of these is too near the horizon to be visible, the other is high up in the sky. (See page 375)

AIDS TO NAVIGATION



Woodland



Orchard



Pine or fir



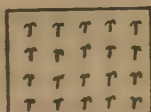
Cleared land



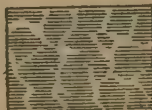
Grassland



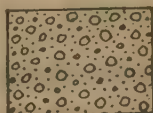
Marsh



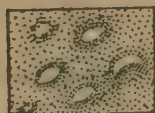
Corn



Tidal flat



Cotton



Dunes



Cultivated
fields



Bluffs
or cliffs

+ LSS (T)

Life saving sta.
(T) telegr. conn.

+ LSS, CG

Life saving sta.
Coast Guard

☆ (radio)

Light house



Light ships



Light ship
with radio



Light ship with
submarine bell
and radio

RS ○

Radio station

RC ○

Radio compass sta

RT ○

Radio tower



Beacon, lighted



Beacons
not lighted

Buoys



red



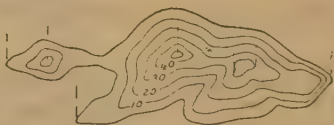
black

The Meaning of Contour Lines

Every contour line is drawn at a definite elevation above sea level and maintains that elevation unvaryingly throughout its course. It may be regarded as an imaginary shore line.



Contour lines on maps are always at uniform heights, or vertical intervals, one above the other. The contour interval is stated on the lower margin.



Sketch and corresponding contour map of island.

The spacing of the contour lines on a map shows the degree of flatness or steepness of the country at any given place. A nearly level plain is shown by contour lines spaced far apart; a gently sloping hillside, by contour lines spaced moderately close together; a steep mountain side, by densely crowded contour lines. How would a vertical bluff or cliff look on a map?

Map Reading To Be Learned in the Field

The quickest and most interesting way to learn to read and use a map is by taking a map with you on a hike. Starting from a definite and readily identified point, such as a cross roads or a bridge, follow closely on the map the route traveled.

Map Making (General Plan)

A sketch map such as is required for the First Class test in map making should be something more than a

mere free-hand drawing. In order to have practical value it should be based on a few simple measurements of **distance** and **direction**.

Distance a Scout can readily measure by pacing, and directions he can take with sufficient accuracy with a pocket compass. All he needs in the way of equipment, therefore, is a pocket compass, a pencil, a rubber eraser, a sheet of paper and, for the final plotting of compass bearings, a small protractor.

All measurements of distance or direction being subject to error, it should be a fundamental policy always to provide for a check on the work. This is done in all surveying. The best way to provide for a check is to make a circuit around or through the area to be mapped, ending at the starting point. Such a survey circuit, made up of successive straight **courses**, whose distances have been paced and whose **bearings** have been determined by compass, is called a **traverse circuit** (pronounce **trav-er-se**).

Selection of Area

It is advisable to lay the traverse circuit along country roads. It should be not less than one mile long and have at least six or eight courses. If no road circuit of appropriate size can be found, part of the traverse may be laid across country, preferably along fences that will afford definite lines to follow. However, pacing across country is to be avoided whenever possible, as it is difficult and liable to large errors.

Always choose an area outside of a crowded city or town, for accurate work with a compass is impossible in those places owing to the disturbing influences of steel structures and electric conduits. City parks also are to be avoided, as the drives in them are usually laid in curves, which are difficult to map.

Preliminary Training in Pacing

Before starting out to make his map a Scout should ascertain the length of his stride by pacing off a distance of 100 or 200 feet measured with a tape. He should step off with the left foot, military style, and count only strides of the right foot. Let him pace the distance three or four times without forcing his gait, then take the mean of his counts. If he averages about 20 strides in 100 feet, he takes about a 5-foot stride. As 5 is easy to multiply with, it is worth while to cultivate a 5-foot stride. If, therefore, he has been averaging slightly more than 20 strides in 100 feet he should slightly lengthen his steps; if his average is slightly under 20, he should slightly shorten his steps.

Some boys can not possibly keep up a 5-foot stride. Let the long legged ones try for an even 6-foot stride, and the short-legged ones for a $4\frac{1}{2}$ -foot stride. They should in any event make a table of strides and equivalent distances in feet, to save themselves much laborious multiplying.

The use of pedometers or other counting devices is not recommended. Most professional map makers prefer to do their own counting, and Scouts will do well to catch the habit.

Compass Work

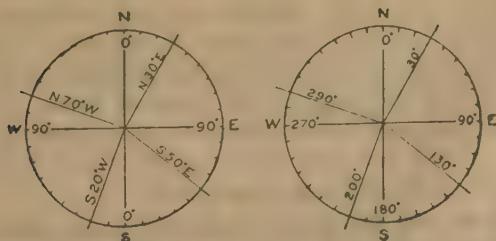
Pocket compasses, indeed all compasses used in surveying and mapping, are graduated in **degrees**, not in **points**, and it behooves a Scout, therefore, to familiarize himself with the system of degrees. There are always 360 degrees, but they may be arranged in either of two ways. In the first the compass is divided into four **quadrants**, each of which is graduated from zero to 90 degrees. North and south are always zero points, east and west are always marked 90. On such a com-

pass a bearing 30 degrees east of north is read N.30°E. (not 30°N.E., nor N.E.30°). A bearing of 50 degrees in the southeast quadrant would be read S.50°E.; a bearing of 20 degrees in the southwest quadrant S.20°W.; a bearing of 70 degrees in the northwest quadrant N.70°W.

On the other style of compass (known as the azimuth compass) the degrees are numbered consecutively around in clockwise direction from zero to 360. North is zero, east is 90°, south is 180°, and west is 270°. On this compass directions are read simply in degrees.

The best way to take a bearing or azimuth reading with a pocket compass is to stand facing in the direction to be determined, compass in both hands, about breast high; then, the box having been turned until the N. is under the north end of the needle, to sight quickly over the pivot and read the degrees in the line of sight on the far side of the dial. At first a pencil laid across the crystal, in the line of sight, or held vertically on the far side of the compass, will be found helpful.

If the needle swings violently it may be calmed down by tilting the compass gently and letting one end of the needle drag for a moment. Do not expect the needle to come to rest altogether. Unless the pivot is worn blunt, the needle will always swing back and forth a little,



Bearings and corresponding azimuth readings.

and the best you can do is to keep the N. about half way between the right hand and left hand swings. Your reading is likely to be two to four degrees in error, but it will be accurate enough for Scouting purposes.

Never stand on or near a railroad or car track when reading a compass, nor close to any electric power line, steel structure, automobile, bicycle, etc., for the compass needle is strongly deflected by them.

The Field Survey

The requirements for the First Class test in map making specify that the map shall be drawn from field notes made on the spot. Jot the notes on a rough free-hand sketch map which you draw as you proceed. Such a rough field sketch is likely to be somewhat distorted, still it will be a better guide for the drawing of the final map than any memoranda which you might write in a note book. To facilitate the drawing of the field sketch tack or paste the paper to a light wooden board or card board.

Select for starting point a cross roads, a road fork or other well defined point. Stand in the middle, look up the first straight stretch of road and take its bearings with your compass. Draw a rough sketch of the road and mark the bearing on it. Pace the distance to the first turn in the road. On the way you will pass several objects that are to be shown on the map. Mark on sketch distance paced to this point, take bearing of next stretch of road and begin a new count of paces. Locate houses and other important objects along or near road, as before. Do so for each course of the traverse circuit until you return to the starting point.

Sketch in with the proper symbols streams, telegraph and telephone lines, fences, crops, orchards, woodland (edges only), grass land, marsh land, etc. As a rule

the interior of the traverse circuit can be sketched wholly by eye, but if it is largely masked by woods, you may have to run a traverse through it. In any event do not guess at it. A Scout map must be reliable.

Some houses and other important objects may be situated too far from the road to be readily located by judging, and they may be inaccessible by reason of "no trespassing" signs or watch dogs. Such houses may be located by means of two compass bearings taken to it from definite points on the traverse circuit. When these bearings are later plotted on the map, their point of intersection will determine the location (see sample map). The method is quick, accurate, and saves much weary tramping. Care must be taken to have the two bearings intersect each other at a reasonably large angle.

The Final Map

The final map is to be constructed at home, with the aid of a protractor and a plotting scale. It is recommended, except in certain unusual cases, that Scout maps be drawn on a standard scale of 400 feet to the inch. Experience has shown that the pacing and compass work is too crude for a map on a larger scale, while the drafting becomes too difficult on smaller scales.

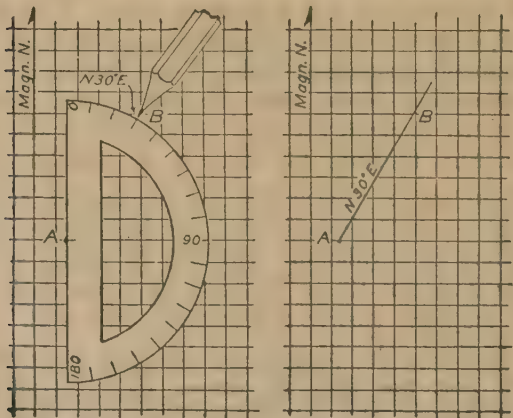
The protractor needed for the plotting of compass bearings is a half circle divided into 180 degrees. Small protractors of cardboard, celluloid, or metal, such as may be had for 10 or 15 cents at stores dealing in school supplies, answer the purpose very well.

To facilitate the plotting of bearings it is recommended that the map be drawn on cross-ruled or "graph" paper. One set of blue lines may then serve as magnetic north lines (the entire map is to be drawn

with reference to the magnetic north, it being based on compass bearings).

To plot a given bearing, such as N. 30°E. place the protractor with its center on the point from which the bearing is to be laid off, and with its straight side parallel to the nearest blue line. Then with a sharp pencil point off the proper number of degrees. Bear in mind that the straight side of the protractor must always lie north-south, never east-west.

Plot the courses of the main traverse circuit first and defer the drafting of road lines and the plotting of houses and other objects until you are satisfied that the main circuit is correct. Be not aggrieved to find that the main circuit will not close exactly. There is bound to be a small discrepancy,— the **error of closure**. Do not try to hide it by fudging; show it just as it is. Every survey, no matter how accurate, has an error of closure, for there is no such thing as absolute exactness of measurement. An error of 100 feet (a quarter of an



How to plot a bearing with a protractor on cross-ruled paper.

BRIGHTWOOD AND VICINITY

Scout John Beal

Troop 6

May 1, 1926



Error of
closure

Scale 400 Ft. to the Inch.

400 200 0 400

inch on the scale of mapping) is not excessive. In some localities, where there is much iron in the ground, half an inch is allowable. If the error should prove to be very much larger it shows that there is a mistake somewhere. You may have misread a bearing, or you may have become confused in counting paces; or you may have misplotted either a bearing or a distance. Go over the plotting first and, if you find no mistake, repeat some of the field measurements.

Draw the final map in pencil only (not in ink). Use a 4H or slightly softer pencil, well sharpened, and make firm, neat lines. Print (do not write) names of villages, roads, streams, mountains, etc. All such names must be readable from the bottom of the map. Leave all the bearings and distances on the courses of the main circuit so that the examiner may check them. Likewise the bearings taken to distant houses.

Do not undertake to show hills and valleys by means of contour lines, but show bold features, such as lines of bluffs and cliffs, by means of hachures. An example is given at bottom of page 265.

In an upper corner of the map print a title describing the locality. Under it print your name, troop number, and date of survey.

Draw a neat, strong line ending in a **half-arrow** to show the direction of magnetic north. Label it Mag. North. Plot the direction of true north in accordance with the magnetic declination of your locality. The city engineer or county surveyor can tell you what the magnetic declination is. Show the true north by a **full arrow** and label it True North.

At the foot of the map draw a bar scale three inches long. Subdivide the inch at the left end into quarter inches and mark the divisions in hundreds of feet. Above the bar scale print: Scale 400 feet to the inch or Scale 1/4800. (1 inch to 4,800 inches).

Requirement No. 9

"Use properly an axe for felling or trimming light timber; or produce an article of carpentry, cabinet-making, or metal work made by himself; or demonstrate repair of a decaying or damaged tree. Explain the method followed."

In meeting this requirement, **no live trees** should be used, only dead timber.

It has also been suggested that where a dead tree is cut, a Scout should plant some trees—a fine thought.

Or some article of handicraft may be made either of wood or metal.

It is recommended that this be some article of actual usefulness about the home, or Troop meeting place, or school, or camp.

For ideas consult your Manual Training Department in school or "Boys' Life" or Dan Beard's books. See Public Librarian.

The article submitted should be in finished form.



Lantern
design by Paul Revco



MARTEN HOUSE

“Or demonstrate repair of a decaying or damaged tree.”

A decaying tree was first a damaged tree. Trees not only need food and water and cultivation to avoid smothering but they need protection against infection.

Tree Wounds

A tree wound closely resembles a human skin or flesh wound. The same problems are present.

(1) The wound should be quickly cleaned and covered with the torn bark and with grafting wax to prevent drying out; or cow dung and clay plastered over it, or shellac and paint.

(2) The wound must be disinfected; as with corrosive sublimate (2 oz. to 15 gal.); copper sulphate (1 oz. to 1 gal.); Formalin (1 oz. to 2 gal.); creosote; carbolic acid; gasoline; kerosene; lime, sulphur wash, etc.

(3) Use a dressing to keep out enemies and water. The dressing should stick to the wood, should weather well and should be easy to apply. Any of the following may be used: Plastic cement, used by slaters; grafting wax, for temporary use; coal tar; asphalt compounds; white lead and linseed paint.

Most of these need repeated application to keep a surface impervious to insects and water.

The edges of the dressing must come just below the cambium layer to enable it, “skin-like,” to heal over.

Fillings

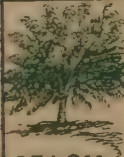
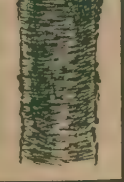
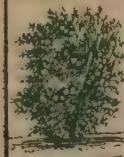
Tree cavities should have the decayed material cleaned out; should then be disinfected thoroughly and be filled with rich cement mixture or asphaltum. Then the surface should be shaped to enable the bark to grow over it, as suggested above.

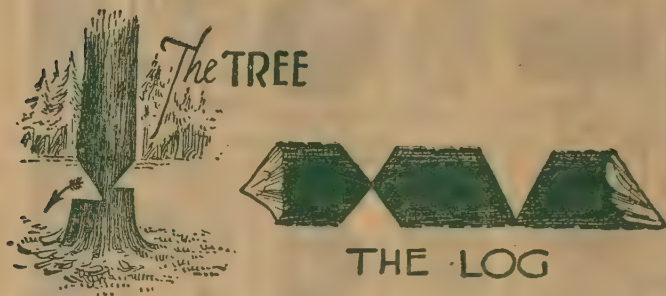
Bracings—Where trees have weak crotches, bolts and turnbuckles can be used to strengthen.

Trimming

Decay can be avoided if broken limbs or dead limbs are cut off close to body of tree and then properly treated as any wound.

The U. S. Department of Agriculture at Washington, D. C., will provide bulletins and advice. Farmer's Bulletin 1178, Sept., 1920, gives excellent counsel. The Davey Tree Surgeons of Kent, Ohio, will also answer questions.

 APPLE		white to dark red  variable in size		
 PEAR		white to pink  variable in size		
 PEACH		variable in size  white to golden yellow with red		
 PLUM		variable in size  white, yellow, dark purple to black		
 CHERRY		yellow to dark red  variable in size		
 ORANGE		golden yellow  3" - 4"		 A. R. JANSON



Requirement No. 10

“Judge distance, size, number, height and weight within 25 per cent.”

Many people are poor judges of distance or size. A Scout needs to be able to do these things because sometimes in an emergency a short rope or a board on the ice which is too short may mean the loss of life.

Distance

In judging distances, the Scout should know and use *his* height, *his* reach, *his* finger length, *his* pace, etc. These serve as *units* for him.

Practice judging distance. Look at a distance, state what you think it is, then pace it or measure it. This practice can be done by Patrols as a competition, can be played as a game and “Keep score.”

JUDGING

“Every Scout should know to an inch what is his usual pace when walking and running. Judging short distances should be practiced first, and then the lengths gradually extended. Begin by judging objects twenty yards away; then increase the distance ten yards at a time until any

space a hundred yards in length or so can be estimated. It must be remembered that the distance is judged from the eye to the object without taking into account the contour of the intervening ground. The following points should be consistently kept in mind and studied in judging distances:

The range of objects is usually overestimated:

1. When kneeling or lying.
2. When the background and the object are of similar color.
3. On broken ground.
4. In avenues, long streets, or ravines.
5. When the object is in the shade.
6. In mist or falling light, or when heat is rising from the ground.
7. When the object is partly seen.

Points to be noted. The range of objects is usually underestimated:

1. When the sun is behind the observer.
2. When the atmosphere is clear.
3. When the background and the object are of different colors.
4. When the ground is level or covered with snow.
5. When looking over water or a deep chasm.
6. When looking upward or downward.

It is further worth noting that:

At 50 yards the mouth and eyes of a man can be clearly seen.

At 100 yards the eyes appear as points.

At 200 yards buttons and any bright ornament can be seen.

At 300 yards the face can be seen.

At 400 yards the movement of legs can be seen.

At 500 yards the color of clothes can be seen.

Scouts should practice constantly such games as:

- (a) Shop Window
- (b) Kim's Game
- (c) Morgan's Game
- (d) Far and Near

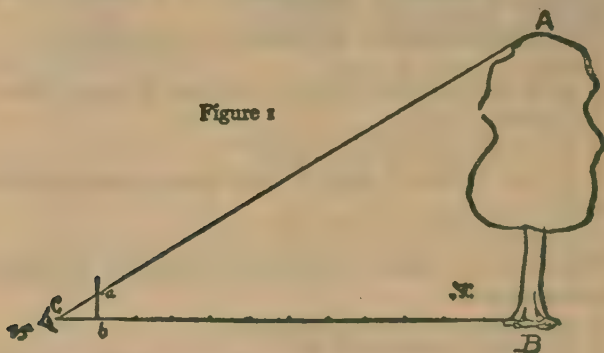
in order to become expert in estimating numbers. Handling solids will improve the ability to tell at a glance the comparative weights of different objects. Only practice and comparisons will develop ability to make accurate judgments."

—From Scoutmastership Notes.

—From Scouting for Boys—Baden-Powell

Height

(1) Know your own height and upward reach. (2) Practice estimating heights of other people. Your own height and that of other people are visible units for use in estimating other heights. (3) How tall is that building It has four stories—you need to know something of the average height of ceilings, etc.



MEASURING HEIGHTS AND DISTANCES

By FREDERICK K. VREELAND, *Camp Fire Club of America.*

To measure the height of a tree or flag pole a Scout Staff is very useful. If A, B, Fig. 1, is a tree, measure off on the ground a distance twelve times the length of your staff, and mark the point C by driving a stake. Then measure off from C one staff length toward the base of the tree, and drive the staff in the ground, at b. Place the eye close to the ground at C, having the staff exactly in line with the tree, and note where the line to the top of the tree cuts the staff. We will call this a. The distance from a to b, measured on the staff in inches, will be equal to the height of the tree in feet.

If the ground is not level, or if the eye is not close to the ground, the distance from a to b should be measured to the point where a line to the base of the tree cuts the staff, and not all the way to the ground.

The reason of this is simple. The triangles A, B, C and a, b, C have exactly the same shape, but one is bigger than the other. Since the distance B C is twelve times the distance b, C, the height of the tree A B must be twelve times the distance measured on the staff a b, hence every inch on the staff is equal to a foot on the tree.

Of course if it is not convenient to measure just twelve pole lengths from the tree, any other distance may be used, but in that case you will have to calculate the height from the rule

$$\text{Lines } \frac{a \ b \ A \ B}{b \ C \ B \ C} \quad \text{or } A \ B = \frac{a \ b \times B \ C}{b \ C}$$

Every Scout should also know the length of his reach, that is, the distance from his eye to an article, such as a stick or lead pencil, held at arm's length. This can be made useful in a number of ways. For example, instead of using the Scout Staff to measure the height of a tree you can use a sighting stick or ruler held upright in the hand.



Figure 2

Hold the stick as shown in Fig. 2 so it covers the tree, with the top A of the stick in line with the top A of the tree. Mark with your thumb the point B, in line with the base B of the tree, and measure its distance from the end of the stick. If the distance of the tree in feet is ten times the length of your reach in inches, then the height of the tree in feet will be ten times the height measured on the sighting stick in inches. For example, if the length of your reach is 24 inches and the distance of the tree is ten times 24 feet, or 240 feet, then if the height measured on your sighting stick is 5 inches, the height of the tree will be $10 \times 5 = 50$ feet.

The sighting stick may be used also for measuring distances by simply working backward, if you know the size of any object at the distant point. Suppose, for example, a Scout wants to know how far away another Scout is. Hold a sighting stick at arm's length and measure off the height of the Scout on the stick. Then the distance is found by the rule:

$$\text{distance} = \frac{\text{height of object} \times \text{length of reach}}{\text{height on stick}}$$

If the height on the stick be 1 inch, the distance in feet of a Scout 5 feet tall will be five times the length of your reach in inches. If your reach is 24 inches the distance will be 120 feet. If the height on the sighting stick is only one-half an inch the distance will be twice this, or 240 feet, etc.

It is a good plan to carry a sighting stick divided to suit the length of your reach.

By two separate observations from two stations, the distance between two inaccessible points can be computed.

Number

In determining the number of objects in any group a certain amount of practice is necessary. This is frequently done by estimating for a small area and then thinking of multiples of that. How many people in the church? So many to a seat—so many seats—this can be rather quickly done.

Weight

In determining weight, one must constantly guard against the illusion of size. A small piece of iron may be much heavier than a large block of wood. Here again skill comes from "Keeping at it."

Requirement No. 11

“Describe fully from observation, (1a) ten species of trees or plants, including poison ivy, by their bark, leaves, flowers, fruit, and scent; or (1b) six species of wild birds, by their plumage, notes, tracks, and habits; or (1c) six species of native wild animals, by their form, color, call, track, and habits; (2) find the North Star, and name and describe at least three constellations of stars.”

Requirement No. 11 (1a)

Describe fully from observation (1a) ten species of trees or plants, including poison ivy, by their bark, leaves, flowers, fruit, and scent.

FLOWERS						
Name	Bark	Leaves	Strength	Size	Fruit	Scent
			Shape			
			Number on			
			Stem			
			Size			Where
						Seen
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						

Test passedDate

SignedExaminer

Trees

*Approved by George B. Sudworth, Chief Dendrologist,
U. S. Forest Service*



Trees

I think that I shall never see
A poem lovely as a tree.

A tree whose hungry mouth is pressed
Against the earth's sweet flowing
breast;

A tree that looks at God all day,
And lifts her leafy arms to pray;

A tree that may in summer wear
A nest of robins in her hair;

Upon whose bosom snow has lain;
Who intimately lives with rain.

Poems are made by fools like me,
But only God can make a tree.

JOYCE KILMER, in "Poetry."

EDITORIAL NOTE:—In addition to Mr. Sudworth, the Editor is indebted to The American Green Cross of Los Angeles, and The American Museum of Natural History of New York City—for materials used in preparing the following tree pages. The following books were used for reference:

Field Book of American Trees and Shrubs.

—F. Schuyler Mathews.

(G. P. Putnam's Sons.)

Handbook of The Trees.

—Romeyn Beck Hough.

(R. B. Hough Pub. Co.)

Forest Trees of the Pacific Slope.

G. B. Sudworth.

(Government Printing Office.)

Know the Trees

To know the trees of your neighborhood is great fun and is not difficult. It is part of the woodcraft of every outdoorsman.

In the following pages are descriptions of 126 trees (Trees 97-126, on pages 320-329 are a distinctly Western group).

Tree Distribution

The following Table will tell any boy which of the trees shown here occur in his state.

ALABAMA

4, 6, 7, 9, 15, 19, 23, 24, 25, 26, 27, 28, 31, 34, 35, 37, 38, 39, 43, 45, 47, 48, 49, 50, 51, 52, 53, 54, 58, 59, 61, 62, 64, 65, 68, 71, 73, 74, 75, 76, 77, 78, 80, 81, 82, 85, 86, 87, 88, 89, 90.

ARIZONA

3, 17, 29, 58, 59, 78, 80, 89, 90, 91, 96, 107, 115, 117, 122, 125.

ARKANSAS

7, 9, 19, 23, 24, 25, 26, 27, 28, 31, 34, 37, 39, 40, 43, 45, 46, 48, 49, 50, 51, 52, 53, 54, 58, 59, 61, 62, 63, 64, 65, 66, 68, 71, 72, 73, 75, 76, 77, 78, 80, 81, 82, 85, 86, 87, 88, 89, 90.

CALIFORNIA

3, 16, 17, 20, 21, 29, 55, 56, 57, 58, 59, 79, 80, 84, 90, 91, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126.

COLORADO

3, 14, 17, 29, 31, 59, 61, 78, 80, 89, 90, 91, 107, 122, 125.

CONNECTICUT

1, 2, 8, 10, 12, 15, 18, 23, 24, 25, 26, 27, 29, 30, 32, 33, 34, 35, 37, 38, 39, 40, 41, 42, 43, 44, 46, 48, 49, 50, 51, 52, 53, 54, 58, 60, 61, 62, 65, 68, 70, 74, 75, 76, 77, 80, 82, 85, 86, 88, 90.

DELAWARE

1, 2, 4, 7, 9, 12, 15, 23, 24, 25, 27, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 48, 49, 51, 52, 53, 54, 58, 60, 61, 62, 64, 65, 68, 74, 75, 76, 77, 80, 82, 85, 86, 87, 88, 90.

DISTRICT OF COLUMBIA

1, 2, 4, 7, 9, 12, 15, 23, 24, 25, 26, 27, 30, 31, 34, 35, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 48, 49, 50, 51, 52, 53, 54, 58, 59, 60, 61, 62, 64, 65, 68, 69, 71, 73, 74, 76, 77, 78, 80, 82, 85, 86, 87, 88, 89, 90.

FLORIDA

6, 7, 9, 19, 27, 31, 34, 35, 37, 39, 43, 45, 47, 48, 49, 52, 53, 54, 58, 61, 62, 64, 71, 75, 76, 77, 80, 83, 85, 86, 87, 89, 90, 92, 93, 94, 95.

GEORGIA

1, 2, 4, 6, 7, 9, 15, 19, 23, 24, 25, 26, 27, 30, 31, 34, 35, 37, 38, 39, 41, 43, 44, 45, 47, 48, 49, 50, 51, 52, 53, 54, 58, 59, 61, 62, 64, 65, 67, 68, 69, 70, 71, 73, 74, 75, 76, 77, 78, 80, 82, 85, 86, 87, 88, 89, 90, 92, 95.

IDAHO

11, 13, 16, 17, 29, 59, 61, 78, 80, 101, 106, 110, 125.

ILLINOIS

1, 5, 7, 10, 19, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 34, 35, 37, 39, 40, 42, 43, 44, 45, 46, 48, 49, 50, 51, 52, 53, 54, 58, 59, 61, 62, 64, 65, 66, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 80, 81, 82, 85, 86, 87, 88, 89, 90.

INDIANA

1, 4, 5, 7, 10, 15, 19, 23, 24, 25, 26, 27, 28, 29, 30, 31, 34, 35, 37, 38, 39, 40, 42, 43, 44, 45, 46, 48, 49, 50, 51, 52, 53, 54, 58, 59, 60, 61, 62, 64, 65, 66, 68, 69, 71, 72, 73, 74, 75, 76, 77, 78, 80, 81, 82, 85, 86, 87, 88, 89, 90.

IOWA

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KANSAS

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KENTUCKY

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LOUISIANA

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MAINE

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MARYLAND

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MASSACHUSETTS

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MICHIGAN

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MISSISSIPPI

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MISSOURI

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MONTANA

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NEBRASKA

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NEVADA

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NEW HAMPSHIRE

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NEW JERSEY

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NEW MEXICO

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NEW YORK

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NORTH CAROLINA

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NORTH DAKOTA

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OHIO

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OKLAHOMA

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OREGON

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PENNSYLVANIA

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RHODE ISLAND

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SOUTH CAROLINA

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SOUTH DAKOTA

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TENNESSEE

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TEXAS

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UTAH

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VERMONT

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VIRGINIA

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WASHINGTON

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WEST VIRGINIA

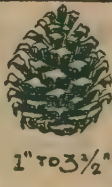
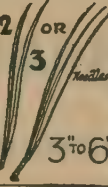
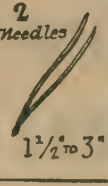
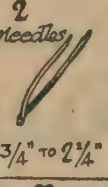
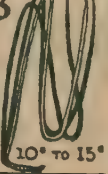
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WISCONSIN

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WYOMING

3, 13, 14, 17, 29, 31, 40, 59, 61, 78, 80, 89, 90, 125.

<i>P. strobus</i>	1  UP TO 200'	FIVE Needles  3" TO 5"	 4" TO 10"		 2" TO 4"	Pitch Pine - White Pine
<i>P. rigida</i>	2  40' TO 75'	THREE Needles  2" TO 5"	 1" TO 3 1/2"		 2' TO 3'	Pitch Pine - Yellow or Rock
<i>P. ponderosa</i>	3  50' TO 200'	2 OR 3 Needles  3" TO 6"	 2" TO 4"		 3' TO 8'	Yellow or Rock
<i>P. virginiana</i>	4  20' TO 45'	2 Needles  1 1/2" TO 3"	 2" TO 3"		 1 1/2' TO 3'	Jersey or Scrub Pine
<i>P. banksiana</i>	5  20' TO 100'	2 Needles  3/4" TO 2 1/4"	 1" TO 2"		 2' TO 3'	Jack or Gray Pine
<i>P. palustris</i>	6  60' TO 100'	3  10" TO 15"	 Red Staminate Flower 2 1/4" TO 3" — CONES 6" TO 10" Scale	 DENSE at branch TIPS	 3 TO 4'	Longleaf - Georgia

1. White Pine

(Pinus Strobus)

Flowers in late spring. Empty cones fall 2nd winter. Chief source finishing lumber in past. Pale buff yellow wood—soft, durable. Weighs 24 lbs. to cu. ft. when dry.



2. Pitch Pine

(Pinus rigida)

Cones ripen 2nd autumn, often hang for several years. Wood—coarse, resinous, light, soft, chiefly used for fuel, lumber and charcoal. Seasoned weight, 32 lbs. to cu. ft.



3. Western Yellow Pine

(Pinus ponderosa)

One of most valuable lumber trees. Trees reach age of 350-500 years. Wood moderately hard, strong, light. Color from pale to reddish yellow. Used for general construction and trim.



4. Scrub or Jersey Pine

(Pinus virginiana)

Found as high as 3,000 ft. altitude. Wood—yellow ocher color, hard, weak. Much used for fuel, paper pulp, charcoal, fencing, and rough lumber.



5. Gray Pine

(Pinus Banksiana)

Scales of the young cones end in minute incurved prickles. Old cones sometimes hang on 10 years. Wood, reddish or yellowish brown, weighs 30 lbs. per cu. ft.

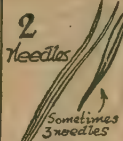
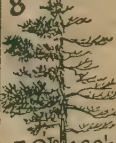
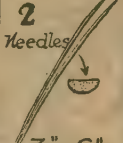
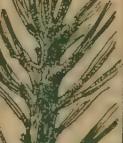
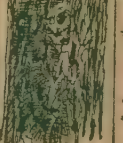
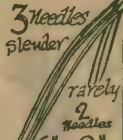
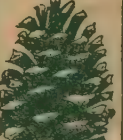
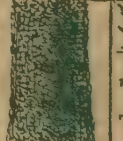
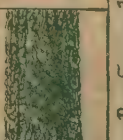


6. Long-leaved or Georgia Pine

(Pinus palustris)

Chief source of resin and turpentine. Most valuable pine for building purposes, flooring and dimension timbers. Grain close, hard, tough, durable, weighing nearly twice as much as No. 1.



<i>Picea Mariana</i> - <i>L. occidentalis</i> - <i>Larix Americana</i> <i>P. taeda</i> - <i>P. resinosa</i> - <i>Pinus edulata</i>	7  50' to 100'	2 Needles Sometimes 3 needles  2 1/2" to 5"	 1 1/2" to 2"	 Rough branchlets	 3' to 4 1/2'	Short Leas, Yellow or Lob Lolly Pine - Red or Norway Pine - Carolina Pine
8  50' to 120' (rarely)	2 Needles  3" to 6"	 2" to 2 1/2"		 2' to 4'		
9  50' to 150'	3 Needles slender rarely 2 needles  6" to 9"			 2' to 4'		
10  30' to 90'	 Clusters, 12 to 20 3/4" to 1 1/4"	 1 1/2" to 3 1/4"		 UP TO 2'		
11  80' to 200' TALL STEMS 100' high	 1" to 1 1/2"	 1" to 1 1/2"		 3' to 4'		
12  80' to 100'	 1 1/4" to 1 1/2"	 3 1/4" to 1 1/2"	 Branchlet pubescent (hairy)	 2' to 3'	Black or Bog Spruce - Western Larch - Tamarack or Eastern Larch	

7. Shortleaf Pine*(Pinus echinata)*

Next in usefulness to Longleaf Pine. Used for interior finish and flooring. An upland tree; wood—hard, coarse-grained. 38 lbs. to cu. ft.

**8. Red or Norway Pine***(Pinus resinosa)*

Found in relatively small scattered groves. An upland tree. Bark, reddish brown. Wood—close grained, strong, hard. Used for spars, piling, sills. Weight 30 lbs. to cu. ft.

**9. Loblolly Pine***(Pinus taeda)*

Cones grow laterally on branch and hang on through second season. Yields coarse-grained, extensively used lumber, called yellow pine. 50% heavier than white pine.

**10. Tamarack or Eastern Larch***(Larix laricina)*

Tree of swampy lands. The leaves fall. Used for railroad ties, telegraph poles, fence posts. Wood lasts well in ground.

**11. Western Larch***(Larix occidentalis)*

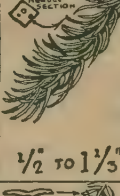
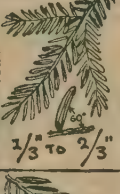
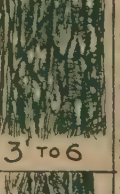
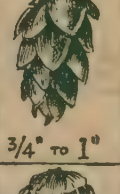
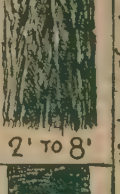
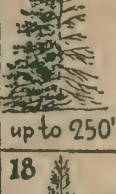
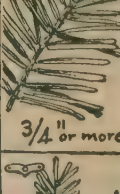
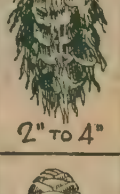
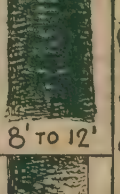
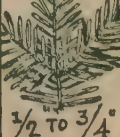
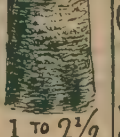
Grows slowly 6 to 8 feet. Trees are 500 to 600 years old; wood twice as heavy as white pine. Used for interior finish, and construction lumber. Durable.

**12. Black or Bog Spruce***(Picea mariana)*

Wood used for paper pulp. Also in construction, pilings, posts and ships. Spruce gum is collected in winter. Weighs 33 lbs. to cu ft.



Abies balsamea—*Pseudotsuga taxifolia*—*Tsuga heterophylla*—*Tsuga canadensis*—*Quercus*—*Picea canadensis*

13  30' to 150'	 $\frac{1}{2}$ " to 1"	 $1\frac{1}{2}$ " to 2"		 3' to 4'
14  25' to 150'	 $\frac{1}{2}$ " to $1\frac{1}{3}$ "	 $2\frac{1}{2}$ " to 4"		 2' to 3'
15  50' to 110'	 $\frac{1}{3}$ " to $\frac{2}{3}$ "	 $\frac{1}{2}$ " to $\frac{3}{4}$ "		 3' to 6'
16  125' to 160' AT TIMES UP TO 200'	 $\frac{1}{2}$ " and over	 $\frac{3}{4}$ " to 1"		 2' to 8'
17  up to 250'	 $\frac{3}{4}$ " or more	 2" to 4"		 8' to 12'
18  40' to 75'	 $\frac{1}{2}$ " to $\frac{3}{4}$ "	 2" to 4"		 1 to $2\frac{1}{2}$

Balsam Fir—Douglas Fir—Western Hemlock—Hemlock—Colorado Blue Spruce—White Spruce

13. White Spruce*(Picea glauca)*

Grows only in very cold climate. Foliage has unpleasant odor when crushed. Wood—light, soft, straight-grained. Used for general construction, also for paper pulp.

**14. Colorado Blue Spruce***(Picea pungens)*

Widely planted for ornament. Silver and pale blue in color. Needles have sharp odor and are needle-pointed. Wood is soft, close-grained, not strong. Used for musical sounding boards.

**15. Eastern Hemlock***(Tsuga canadensis)*

Tsuga is Japanese for Hemlock. In late spring new growth shows light yellow green color. Wood splinters easily; used for rough timbers. Bark for tanning.

**16. Western Hemlock***(Tsuga heterophylla)*

This is the giant hemlock, reaching height of 200 feet. Wood of very excellent quality, extensively used for construction and finishing lumber. Hemlocks also found in Japan, China and Himalaya Mountains.

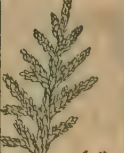
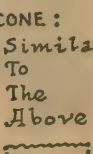
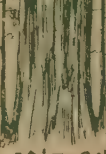
**17. Douglas Fir***(Pseudotsuga taxifolia)*

Cones distinguished by long three-pointed bracts. Wood—yellow. Used for ties and pilings, construction and interior finish. Seven of the 9 known firs are found on the Pacific slope.

**18. Balsam Fir***(Abies balsamea)*

Wood light, soft, perishable. Usually ground into pulp. Needles very aromatic. "Canada balsam" from this tree used medically and in the arts.



<i>Juglans nigra</i> - Black Walnut  50' to 150'	 ↑ LEAFLET 1' to 2' 11 to 23 leaflets	 1 1/3" to 3"		 3' to 8'
<i>Juniperus Virginiana</i> - Juniper  25' to 90'	 ↑ scalelike 3/16" & 1/4" to 3/4"	 dark blue about 3/4" diam.		 2' to 5'
<i>Pinus strobus</i> - White Pine  20' to 60'	 about 1/8"	 1/3" to 1/2"		 2' to 4'
<i>Pinus resinosa</i> - Red Pine  20' to 340'	 1/3" to 3/4"	CONE: Similar To The Above 		 10' to 20'
<i>Sequoia sempervirens</i> - Redwood  190' to 340'	 Scalelike Leaves	 1" to 3"		 17' to 24' AND OVER
<i>Sequoia washingtoniana</i> - Big Tree  50' to 150'	 1/2" to 3/4"	 about 1" diam.	 Staminate Flower Buds	 8' to 10'

19. Bald Cypress*(Taxodium distichum)*

Slow growing tree; 20 inch tree in 200 years. Wood — light, soft, straight-grained, easily worked, durable. Now replacing the more scarce white pine. Makes beautiful panels.

**20. Big Tree—Giant Sequoia***(Sequoia washingtoniana)*

World's oldest trees, 4-5000 years. Also largest cone-bearing tree. Measures 250 to 300 ft. high. No branches for first 100 feet. At ground base much larger than 24 ft.

**21. Redwood***(Sequoia sempervirens)*

Trees 19, 20, 21 remnants of ancient Arctic species. Redwood of great commercial value. Age limit about 1,400. Sprouts readily from old stumps.

**22. Arbor Vitae or White Cedar***(Thuja occidentalis)*

Foliage scale-like, arranged on twigs. Widely used for landscaping. Wood used for poles, fencing, posts, shingles and tub-staves; very durable.

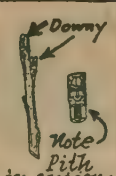
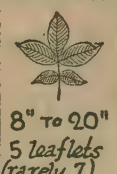
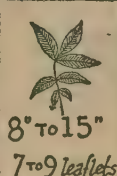
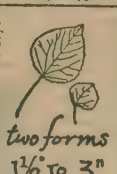
**23. Red Cedar***(Juniperus virginiana)*

Sapwood, white; heartwood, rose-red color. Is used for cedar chests to protect from moths. Used extensively for lead pencils and fence-posts; very durable.

**24. Black Walnut***(Juglans nigra)*

80 years required to grow commercial tree. Natural forest almost exterminated; now planted on farms. Useful for turning, gun stocks, ship building, interior finish, and furniture. Wood, deep brown in color. Nut edible.



<i>Juglans cinerea</i>  30' to 90'	 11" to 17" 11 to 19 leaflets	 1½" to 3"	 Downy Note Pith in section	 3' to 4'
<i>Carya ovata</i> - Shagbark Hickory  60' to 140'	 8" to 20" 5 leaflets (rarely 7)	 1" to 2½"	 Branchlet in Winter	 2' to 4'
<i>Carya alba</i> - Mockernut  90' to 100'	 8" to 15" 7 to 9 leaflets	 1½" to 2"		 3' to 4'
<i>Carya pecan</i> - Pecan  70' to 170'	 12" to 20" 9 to 15 leaflets	 1" to 2"		 5' to 6'
<i>Populus tremuloides</i> - Quaking Aspen  90' to 100'	 two forms 1½" to 3"	 FLOWERS SEED Capsule about 1/8 in.	 Branch Bud	 1½" to 2"
<i>Populus grandidentata</i> - Large-tooth Aspen  30' to 80'	 3" to 6"	 2-valved capsules 1/8 in.	 Winter branchlets	 1' to 2'

25. Butternut*(Juglans cinerea)*

Nut is edible. Wood valuable and highly prized for interior finish and furniture. Green husks of nut used to make yellow dye. Weight 25 lbs. per cu. ft. Sap rich in sugar.

**26. Shagbark Hickory***(Carya ovata)*

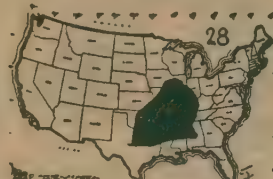
Blooms in May. Ripe in October. Wood—hard, heavy, tough. Used for making of farm implements, tool handles, baskets, fuel, wagon-making. Nut edible.

**27. Mocker Nut***(Carya alba)*

Nut not so well flavored as 26. Wood used commercially as shagbark hickory. Weight over 50 lbs. to the cu. ft.

**28. Pecan***(Carya pecan)*

Flowers April to May, fruits September to October. Cultivated in South as far as Texas for its edible nuts. Weight 45 lbs. to cu. ft. Good fuel. Used in agricultural implements.

**29. Quaking Aspen***(Populus tremuloides)*

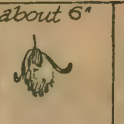
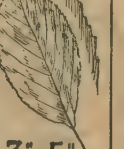
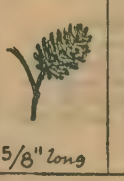
Leaves so thin and flat that any breeze moves them. Used to make paper pulp and excelsior. Weight 25 lbs. to cu. ft. Wood not strong.

**30. Large-toothed Aspen***(Populus grandidentata)*

Bark slightly more buff than the gray color of 29. Wood used for same purposes as 29. Weight 28 lbs. to cu. ft. Seeds scatter easily and grow rapidly.



Populus deltoides — *B. nigra* — *B. populifolia* — *Betula papyrifera*

31  70' to 160'	 Dark Green 3" to 7"	 about 6" 2 to 4-valved Capsules	 Angular	 6' to 8'
32  70' to 80'	 2" to 4"	 1 1/2"		 3' to 4'
33  20' to 30'	 2" to 3 1/2"	 3/4"		 NOTE black tri- angles 8" to 18"
34  80' to 90'	 2" to 4"	 1" to 1 1/2"		 4' to 5'
35  70' to 80'	 2 1/2" to 5"	 1" to 1 1/2"		 2' to 5'
36  UP TO 30'	 3" to 5"	 5/8" long		 5" to 6" (in)

Seaside Alder — *quercus* *swet* *Birch* — *Red or River Birch* — *Gray* or *white* *Birch* — *Cane or White Birch* — *Cottonwood* *Poplar*

31. Cottonwood Poplar*(Populus deltoides)*

One of the largest poplars. Wood is light and soft; used for household wooden-ware, boxes, paper pulp; tendency to warp. Weight 24 lbs to cu. ft.

**32. Canoe or Paper Birch***(Betula papyrifera)*

Wood is hard, close-grained; used for spools, shoe-pegs and lasts, paper pulp and fuel. Bark is tough, of many layers, used by Indians for canoes, baskets, etc.

**33. Gray Birch***(Betula populifolia)*

Found on rocky hillsides, sprouts easily from stump again. Wood soft, not durable. Used for spools, pulp, hoops, fuel. Weight 35 lbs. to cu. ft. Grows rapidly in burnt over areas.

**34. Red or River Birch***(Betula nigra)*

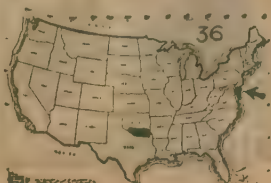
Usually branches 6-8 ft. above ground. Bark is thin and curls with age. Wood light brown color, used for furniture, turning, woodenware. Same weight as No. 33.

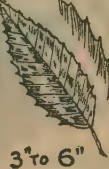
**35. Black Cherry, Sweet Birch***(Betula lenta)*

Bark dark slate-gray, brown on younger trees. A substitute for oil of wintergreen is made from bark and twigs. Wood used for furniture.

**36. Seaside Alder***(Alnus maritima)*

Late flowering shrub, sometimes 30 ft. high. Branchlets light brown and smooth. Flowers in September; fruits the following year. Weight 31 lbs. to cu. ft.



<i>Q. rubra</i> — <i>Q. prinus</i> — <i>Q. macrocarpa</i> — <i>Quercus alba</i> — <i>Castanea dentata</i> — <i>Fagus ferruginea</i>	37  45' to 100'	 3" to 6"	 $\frac{3}{4}"$		 2' to 4'
	38  50' to 120'	 6" to 9"	 2" diam $\frac{3}{4}"$ to 1"		 6' to 12'
	39  50' to 150'	 4" to 9"	 $\frac{3}{4}"$		 6' to 8'
	40  40' to 170'	 5" to 9"	 $\frac{1}{2}"$ to 2"		 6' to 7'
	41  40' to 100'	 5" to 7"	 1" to 1 $\frac{1}{2}"$		 3' to 6'
	42  50' to 140'	 5" to 9"	 $\frac{3}{4}"$ to 1 $\frac{1}{2}"$		 2' to 6'

Red Oak — Chestnut Oak — Bur Oak — White Oak — Chestnut — Beech

37. Beech*(Fagus grandifolia)*

Bark very smooth, light gray with darker patches. Wood is hard, close-grained. Used for chairs, woodenware, shoe lasts. Edible nuts, ripe in September and October.

**38. Chestnut***(Castanea dentata)*

Edible nuts ripe in September, October. Bears in 5th year. By 15th year valuable for timber. Wood light, soft, durable. Used for furniture, interior finish, picture frames, ties, fence-posts, telegraph poles.

**39. White Oak***(Quercus alba)*

Commercially one of the most valuable trees. Wood strong, heavy, hard, close-grained. Useful alike inside or outside. Weighs 50 lbs. to cu. ft.

**40. Burr Oak***(Quercus macrocarpa)*

Bark ashen gray. Used commercially like white oak. Weight 47 lbs. to cu. ft. Valued for ship building, furniture, etc. Is often confused with white oak.

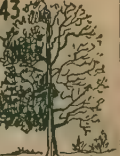
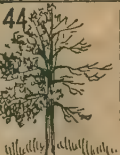
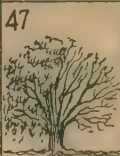
**41. Chestnut Oak***(Quercus montana)*

Bark rich in tannin. Wood deep brown in color. Same weight as No. 40. Used for ties, fencing and fuel. Grows to great age—several centuries.

**42. Red Oak***(Quercus borealis maxima)*

Acorns mature the second year. Wood too coarse grained for finer uses but much used for the same purposes as No. 39. Used for heavier construction; weighs 41 lbs. to cu. ft.



Ulmus pubescens—Q. virginiana—Q. palustris—Q. marilandica—Q. coccinea—Quercus velutina	43  70' to 100'	 3" to 12"	 $\frac{1}{2}$ " to $\frac{3}{4}$ "		 3' to 4'
	44  70' to 80'	 4" to 6"	 $\frac{1}{2}$ " to $\frac{3}{4}$ "		 2' to 3'
	45  40' to 50'	 5" to 8"	 $\frac{1}{2}$ "		 $1\frac{1}{2}$ " to 2'
	46  (110') 50' to 80'	 4" to 6"	 $\frac{1}{2}$ " diam.		 2' to 5'
	47  40' to 60'	 2" to 4"	 $2\frac{1}{3}$ " long		 6' to 8'
	48  60' to 70'	 5" to 8"	 $\frac{1}{2}$ " to $\frac{3}{4}$ "		 1' to 4'

Janson

Slippery Elm—Live Oak—Pin Oak—Black Jack Oak—Scarlet Oak—Black Oak

43. Black Oak

(Quercus velutina)

Leaves deep green above, light green below with bristle tipped points. Wood light brown, heavy (44 lbs. to cu. ft.), used for construction and barrels, yellow dye made from bark.



44. Scarlet Oak

(Quercus coccinea)

May grow 170 ft. high. The wood is similar to that of the BLACK OAK. Chiefly used for fuel (42 lbs. per cu. ft.).



45. Black Jack Oak

(Quercus marilandica)

Branches generally drooping. Wood heavy (46 lbs. per cu. ft.), strong, dark brown. Used chiefly for fuel and charcoal making.



46. Pin Oak

(Quercus palustris)

Limbs slender and drooping, with tiny branchlets, hence name. Commercially not very valuable. Used in rough construction and interior decorating. Weight 43 lbs. to cu. ft.



47. Live Oak

(Quercus virginiana)

An evergreen. Heaviest of the oak, 60 lbs. to cu. ft. Very hard, turns edge of tools when dry. Takes fine polish. Once much used in ship-building. Attains great size with age.

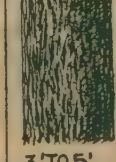
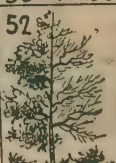
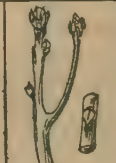
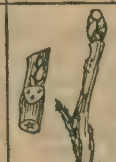
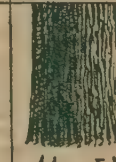


48. Slippery Elm

(Ulmus pubescens)

Wood heavy, hard, durable. Used for fence posts, wheel hubs, building sills and ribs of small boats. 43 lbs. to cu. ft. Inner bark valuable.



<i>Platanus occidentalis</i>—Liquidambar, grey-stem 49  50' to 120'	 2" to 4½"	 ½" to ¾"		 4' to 10'	<i>Linus americanus</i>
<i>Sassafras officinale</i>—Sassafras, grey-stem 50  50' to 90'	 7" to 10"	 3"		 3' to 5'	<i>Maquolia acuminata</i>—Cucumber Tree
<i>Liriodendron tulipifera</i>—Tulip or yellow-poplar 51  50' to 190'	 3" to 7"	 2" to 3"		 8' to 10'	<i>Linus americanus</i>
<i>Sassafras officinale</i>—Sassafras, grey-stem 52  80' to 90'	 3" to 7" Varying forms	 ¼" to ⅓"		 4' to 6'	<i>Liriodendron tulipifera</i>—Tulip or yellow-poplar
<i>Liquidambar styraciflua</i>—Liquidambar, grey-stem 53  100' to 140'	 3" to 5"	 1" to 1½"		 4' to 5'	<i>Sassafras officinale</i>—Sassafras, grey-stem
<i>Platanus occidentalis</i>—Liquidambar, grey-stem 54  150' to 175'	 4" to 9" WIDE	 1" to 1½"		 5' to 11'	<i>Sycamore</i>—Sweet or Red Gum—Sassafras

49. American or White Elm*(Ulmus americana)*

Insect pests are threatening elms. Wood used for wheel hubs, saddle trees, barrels, ship building. 40 lbs. to cu. ft.

**50. Cucumber Magnolia***(Magnolia acuminata)*

Greenish tulip-shaped flowers in late May. Cucumber-like fruit, green then crimson. Seeds orange red. Wood light, close-grained. Used for water pipes, cabinet making.

**51. Tulip Tree or Yellow Poplar***(Liriodendron tulipifera)*

Flowers mottled with orange and tulip-shaped. Wood soft and light, easily worked. Does not warp easily. Commercially very valuable.

**52. Sassafras***(Sassafras officinale)*

Different shaped leaves occur on same tree. Grows quickly. Called "smelling stick" by Indians. Used for fencing, barrels, boat building. Young root has pleasant taste.

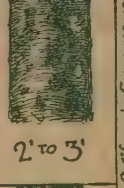
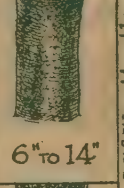
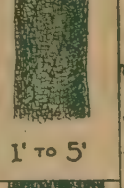
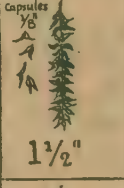
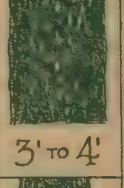
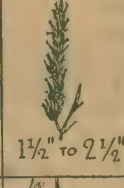
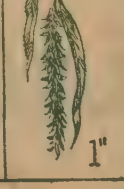
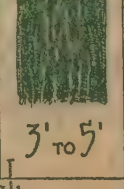
**53. Sweet or Red Gum***(Liquidambar Stryaciflua)*

Hard, heavy (38 lbs. to cu. ft.), used for outside finish of houses and extensively for furniture. Sap used in chewing gum and for catarrhal trouble.

**54. Sycamore***(Platanus occidentalis)*

Bark brown with light patches. Ball-like fruit hangs on in winter. Wood checks badly. Used for cigar boxes, ox yokes, furniture, occasionally interior finish, planking.



<i>s. Babylonica</i> — <i>S. fluviatilis</i> — <i>Salix nigra</i> — <i>Arbutus menziesii</i> — <i>Myrica californica</i> — <i>Platanus racemosa</i>	 40' to 80'	 6" to 8" WIDE	 Stem 5' to 10' Long With Several balls		 2' to 3'	California Sycamore
56	 3' to 35'	 Less Teeth varying margin 2" to 6"	 WAX COVERED crowded clusters 3/8" diam.		 6" to 14"	Calif. Wax Myrtle
57	 20' to 125'	 3" to 6"	 5/16" to 7/16"		 1' to 5'	Madroña
58	 20' to 120'	 Pairs of Stipules at leaf base 3" to 6"	 Capsules 1/8" 1/4" 1/2" 1 1/2"		 3' to 4'	Black Willow
59	 Generally 5' to 6' also 60' to 70'	 2" to 6"	 1 1/2" to 2 1/2"		 Up to 2 feet	Sand-bar Willow
60	 50' to 60'	 3" to 6"	 1"		 3' to 5'	Weeping Willow

55. California Sycamore*(Platanus racemosa)*

Bark brown at bottom, white at top. 86 years to grow to a 20 inch trunk. Wood similar to No. 54 weighing about 35 lbs. to cu. ft.

**56. California Wax Myrtle***(Myrica californica)*

Berries purple-black, covered with white wax. Trunk dark gray, branches ashen gray. Found mostly on coastal sand dunes. Wax may be cast into candles which burn well.

**57. Madrona***(Arbutus menziesii)*

The sketch shows the blossom. The red fruit "berries," are $\frac{1}{2}$ inch diameter with a pebbled surface.

**58. Black Willow***(Salix nigra)*

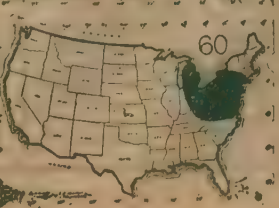
Like other willows, staminate and pistillate catkins borne on separate trees. Wood of no commercial value. Bark rich in tannin, has medicinal properties for fevers.

**59. Sand-bar Willow***(Salix longifolia)*

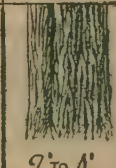
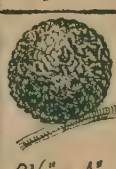
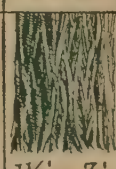
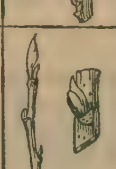
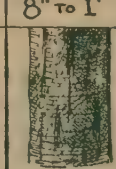
Shrub or small tree forms dense thickets on alluvial soil or river sand bars. Weight 30 lbs. to cu. ft. Has little value. Wood is very soft.

**60. Weeping Willow***(Salix babylonica)*

Originally imported from Europe, now spreading naturally through the drifting of detached branchlets. Has little value other than for its beauty, which is unusual.



Celtis occidentalis — *Toxylon pomiferum* — *Morus rubra* — *Asimina triloba* — *Panama* — *Hamamelis Virginiana* — *Southern Crab Apple* — *Witch-Hazel* — *Fawpaw* — *Osage Orange* — *Red Mulberry* — *Hackberry*

61  20' to 130'	 2½" to 4"	 ¼"		 4' to 5'
62  20' to 80'	 4" to 6"	 1"		 2' to 4'
63  50' to 60'	 3" to 4"	 2½" to 4"		 1½" to 3'
64  10' to 40'	 6" to 12"	 3" to 5"		 8" to 1'
65  10' to 40'	 2" to 4"	 5/8"		 6" to 1½'
66  18' to 25'	 3" to 5"	 1" to 2½"		 10" to 15"

61. Hackberry*(Celtis occidentalis)*

Fruit cherry-like, edible, at first ochre yellow, finally purple black. Wood heavy (40 lbs. to cu. ft.), soft. Some commercial value for rough lumber.

**62. Red Mulberry***(Morus rubra)*

Widely cultivated. Planted in southern states for fruit, eaten by pigs and poultry. Fruit sweet and juicy. Wood used in boat building, for fences, etc; is durable.

**63. Osage Orange***(Toxylon pomiferum)*

While a south-western tree, it has been widely planted for hedges. Wood excellent for bows. Strong, heavy (38 lbs. to cu. ft.), and produces a yellow dye.

**64. Pawpaw***(Asimina triloba)*

Tree has an unpleasant odor when leaves or branches are crushed. Fruit edible in October, especially after frost. Wood, light, of no economic value.

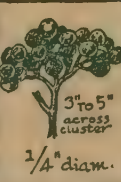
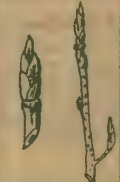
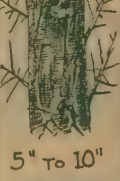
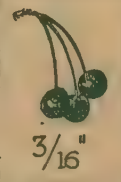
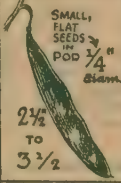
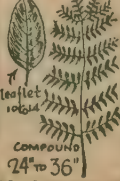
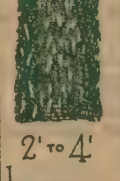
**65. Witch Hazel***(Hamamelis virginiana)*

From its bark and twigs a valuable distillate is made. When seed pods burst, in the second season, the 4 seeds are "shot" 15 to 45 feet away.

**66. Crab Apple***(Pyrus Soulardii)*

While the one illustrated is a cultivated variety, the crab-apples occur wild in most sections. Belong to the rose family. Fruit usually fragrant but sour; small trees.

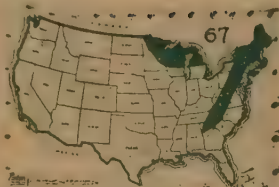


<i>Gymnocladus dioica</i> —Cercis canadensis—Prunus pennsylvanica—Crataegus tomentosa—Aralia nudicaulis—Sorbus americana—	67  30' to 40'	 6" to 8" 9-17 leaflets COMPOUND	 3" to 5" across cluster 1/4" diam.		 8" to 15"
	68  40' to 50'	 2 1/2" to 4"	 1/4" to 1/2"		 1 1/2" to 2"
	69  18' to 20'	 3" to 5"	 1/2"		 5" to 10"
	70  30' to 40'	 1" to 5"	 3/16"		 4" to 15"
	71  40' to 50'	 3" to 5"	 SMALL, FLAT SEEDS IN POD 1/4" diam. 2 1/2" to 3 1/2"		 10" to 12"
	72  TO 100'	 7 leaflets 24" to 36" COMPOUND	 3/4" SEED diam.		 2' to 4'

K'ry Coffee Tree — *Red Bud or Judas Tree* — *Bird or Wild Red Cherry* — *Pear Thorn or Hawthorn* — *Serviceberry* — *Mountain Ash*

67. Mountain Ash
(*Sorbus americana*)

White clustered flowers in May-June. Fruit red or scarlet, hangs into winter. Wood close grained, weighs 34 lbs. to cu. ft. Of no commercial value.



68. Serviceberry or Shadbush
(*Amelanchier canadensis*)

Bark gray with brown stripes. Fruit an edible berry, crimson at first then dark purple. Ripe in June. Wood lard, heavy (50 lbs. to cu. ft.), used for tool handles, fishing rods, etc.



69. Pear Thorn or Haw
(*Crataegus tomentosa*)

Bears spines which are about 1½ inches long. Fruit red and edible. Has no economic value. Tree small.



70. Wild Red or Bird Cherry
(*Prunus pennsylvanica*)

Fruit very sour but eaten by birds. Light brown wood is soft and of no economic value. Grows up rapidly in burnt over areas.



71. Rosebud or Judas Tree
(*Cercis canadensis*)

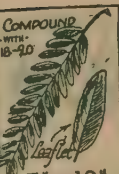
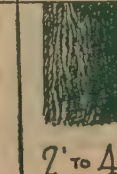
The red flowers precede the leaves. Cultivated as ornamental tree. Wood not used commercially; is hard, heavy, (42 lbs. to cu. ft.).



72. Kentucky Coffee Tree
(*Gymnocladus dioica*)

Spreading naturally from cultivation. Wood is soft, strong, close-grained, lasts well, (43 lbs. to cu. ft.). Used for posts, also in cabinet making. Flowers sweetly fragrant.



Acer Negundo — Acer rubrum — Acer saccharum — Ilex opaca — Rhus hirta — Gloditsia triacanthos	73  75' to 140'	Compound with 18-20 leaflets  7" to 10"	 seed 10" to 18"		 2' to 6'
	74  35' to 40'	11 to 31 leaflets  12" to 24"	Drupe or seeds 3/8"  6" high		 12" to 15"
	75  40' to 50'	 2" to 3"	9 hullets  RED 1/4" to 5/16"		 2' to 3'
	76  50' to 110'	 2" to 5"	 1"		 3" to 5"
	77  40' to 100'	 2" to 6"	 2" to 4"		 2' to 4'
	78  40' to 75'	3 leaflets  4" to 9" also 5	 1 1/2" to 2"		 2' to 4'

A.R.C.

Box Elder of the Maple — Red Maple — Sugar Maple — American Holly — Staghorn Sumack — Honey Locust

73. Honey Locust*(Gleditsia triacanthos)*

Found oftener in cultivation than wild. Wood durable as posts, wheel hubs and rough construction (42 lbs. to cu. ft.). A quick grower.

**74. Staghorn Sumach***(Rhus hirta)*

If cut in spring a sticky, milky sap flows. Wood beautifully grained, greenish in color. Used in souvenir manufacture and small cabinet work.

**75. American Holly***(Ilex opaca)*

Leaves evergreen, prickly. Fruit persists through winter. Branches widely used for Christmas decorations. Wood used in cabinet making and interior finish.

**76. Sugar Maple***(Acer saccharum)*

Greenish yellow flowers appear with the leaves. The sugar tree. One tree can yield 5 lbs. sugar. Wood heavy (43 lbs. to cu. ft.), used for flooring, cabinet work. Commercially important.

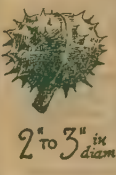
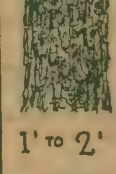
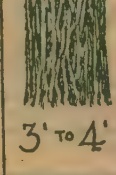
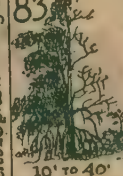
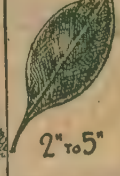
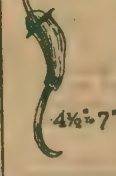
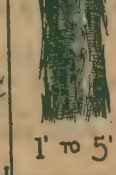
**77. Red Maple***(Acer rubrum)*

Red in spring, twigs red in summer, leaves red in autumn. Wood widely used for chairs, woodenware, turning, (38 lbs. to cu. ft.) Sap yields sugar.

**78. Box Elder or Ash-leaved Maple***(Acer negundo)*

Sap can be made into sugar. Wood is light (27 lbs. to cu. ft.) Used for furniture, interior finish, barrels and for paper pulp.



<i>Eucalyptus globulus</i>—<i>Quizophora marginifolia americana</i>—<i>Aesculus glabra</i>—<i>Aesculus hippocastanum</i>—<i>Acer macrophyllum</i>  30' to 90'	 4" to 10" in width	 2"		 1' to 4'	California Maple
 40' to 80'	 5 to 7 Leaflets each 4 to 7 in. Whole leaf 1' across	 2" to 3" in diam.		 1' to 3'	Horse Chestnut
 50' to 75'	 5 to 7 Leaflets each 3 to 6 in. Whole leaf 7' across	 1' to 2" in clusters and singly.		 1' to 2'	Ohio Buckeye
 50' to 130'	 4" to 10"	 $\frac{1}{2}$" to $\frac{3}{4}$"		 3' to 4'	Basswood
 10' to 40'	 2" to 5"	 4 $\frac{1}{2}$" to 7"		 Descending Roots from Branches—	Mangrove
 50' to 150'	 5" to 15"	 1"		 1' to 5'	Eucalyptus

79. Big-leaved Maple*(Acer macrophyllum)*

Extensively cultivated. The hard close-grained wood is used for tool handles, furniture, trim and flooring. A native of California, though grows elsewhere abundantly.

**80. Horse Chestnut***(Aesculus Hippocastanum)*

Native from Greece to Himalaya Mountains.. Cultivated widely. Not edible. Wood used by European wood carvers and turners. Weight 28 lbs. per cu. ft.

**81. Ohio Buckeye***(Aesculus glabra)*

Pod contains two nuts. Not edible. Soft wood not of much economic value. Used for small woodenware, artificial limbs and paper pulp.

**82. Basswood or Linden***(Tilia glabra)*

The inner bark is used for mat fibre. Wood is used for carriages, furniture, woodenware and pulp.

**83. Mangrove***(Rhizophora mangle)*

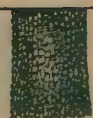
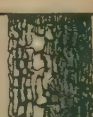
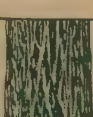
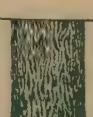
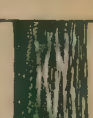
A coastal Florida tree. Is called the "land-builder." A single tree may spread with new roots like a giant fence.

**84. Eucalyptus or Blue Gum**

(One species, *E. Amygladina*, tallest known tree, 480 feet high.)

Native of Australia. Grows also in Florida. Leaves, leathery in texture. Produces fragrant oil with medicinal properties. Wood, strong and durable—used in ship-building and construction.



<i>Cephalanthus occidentalis</i> L. <i>Lanceolata</i> — Fraxinus americana — Diospyros Virginiana — Nyssa sylvatica — Cornus Florida — #	85  12' to 40'	 2' to 4'	 $\frac{1}{2}$ " in length EACH		 6' to 14'
	86  20' to 100'	 2" to 5"	 $\frac{1}{2}$ "		 3' to 5'
	87  40' to 110'	 3" to 7"	 1" to 1½"		 2' to 3'
	88  60' to 120'	 8" to 15" with 5 to 11 leaflets	 1" to 2"		 4' to 6'
	89  60' to 70'	 8" to 12" with 5 to 9 leaflets	 Samara 1" to 2"		 2" to 3"
	90  3' to 50'	 3" to 7"	 $\frac{3}{4}$ "		 6" to 2'

Button-bush or Willow-Green Ash — White Ash — Persimmon — Tupelo or Sour-Gum-Flowering Dogwood

85. Flowering Dogwood*(Cornus florida)*

Flowers—four bracted cream-white to pink. Ovoid fruit deep scarlet. Heavy, hard wood. Minor uses, such as shuttles, mallets, pulleys, rules, etc.

**86. Tupelo or Sour Gum***(Nyssa sylvatica)*

Flowers green—fruit, purple-black. Wood no special commercial value. Used for wheel hubs, ox-yokes, house-movers' rolling blocks, fruit crates.

**87. Persimmon***(Diospyros virginiana)*

Pistillate and staminate flowers on separate trees. Fruit edible when fully ripe and frosted. Wood heavy (50 lbs. to cu. ft.) Takes fine polish. Used for bench screws, mallets, wagon shafts, lasts, shuttles.

**88. White Ash***(Fraxinus americana)*

Pistillate and staminate flowers on separate trees. Next to the oak, this is one of most important trees commercially. Used for agricultural implements, wagons, furniture, oars. (41 lbs. to cu. ft.)

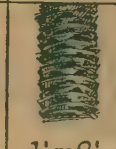
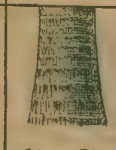
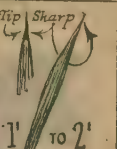
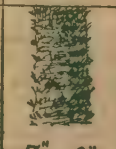
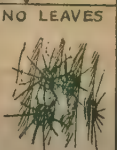
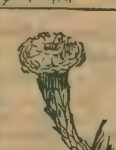
**89. Green Ash***(Fraxinus pennsylvanica lanceolata)*

Leaf and twigs very smooth. Along streams and in moist lowlands. Most abundant in the Mississippi basin. Has much commercial value as wood is strong, resembling oak.

**90. Button Willow or Button-bush***(Cephalanthus occidentalis)*

Borders sluggish streams, venturing even into water. Its bark is rich in tannin and has some medicinal properties. Grows among willows, hence the name.



Cereus giganteus—Yucca aloifolia—Cocos nucifera—Roystonea regia—Sabal palmetto—Prosopis juliflora	91  10' to 50'	 LEAFLET 7' to 12'	 3" to 9"		 1' to 2'
	92  50' to 80'	 4' to 6' long 6' to 8' broad	 $\frac{1}{3}$" diam.		 1' to 2'
	93  80' to 100'	 10' to 12'	 $\frac{1}{2}$" long		 1' to 2'
	94  30' to 80'	 10' to 20'	 HUSK 1'	 ALWAYS IN LEAF AFTER FIRST BUD	 1' to 2'
	95  5' to 25'	 Tip Sharp 1' to 2'	 3" to 5"		 3" to 6"
	96  20' to 60'	NO LEAVES  SPINES $\frac{1}{2}$" to 1"	 3"		 1' to 2'

A.R.J.

Giant Cactus—Spanish Bayonet—Coconut Palm—Royal Palm—Cabbage Palmetto—Honey Mesquite

91. Honey Mesquite*(Prosopis juliflora)*

Roots will descend 40 to 60 feet for water. Such roots are valuable fuel supply. Wood useful for ground use, posts, ties. Ripe pods used by Indians as food.

**92. Cabbage Palmetto***(Sabal palmetto)*

So called because the green crown at top is edible, though to use it destroys the tree. Grows in rich damp lowlands or on little islands in water.

**93. Royal Palm***(Roystonea regia)*

The stately kind of palm distinguished by its smooth light brown trunk surmounted by smooth green leaf base. Needs a very rich soil.

**94. Cocoanut Palm***(Cocos nucifera)*

Blooms and fruits continuously. Edible fruit. Trees can produce 60 yearly. Lumber, leaves, shell and oil all useful. Source of commercial shredded cocoanut. Salt aids growth.

**95. Spanish Bayonet***(Yucca aloifolia)*

A central woody stem. Very sharp point at end of lateral leaf. Fertilized by moths. Stem and leaf fibre used for cordage by Mexicans. Fruits may be cooked. Roots have soap properties.

**96. Giant Cactus***(Cereus giganteus)*

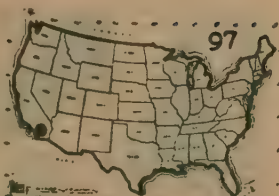
A native of the arid desert regions of Central and Southern Arizona. Indians used the ripe fruits as food. Is the largest of the cacti.



<i>P. lambertiana</i> - Torrey Pine	97 50' to 60'	5 needles 7½" to 13"	 to 5"		 8" to 14"
<i>P. jeffreyi</i> - Jeffrey Pine	98 160' - 180'	5 needles 2¾" to 4"	12" to 23½" 		 4' to 7'
<i>P. sabiniana</i> - Sabin Pine	99 150' - 180'	3 needles 5" to 9½"	 5½" to 11¼"		 3' to 8'
<i>P. monticola</i> - Knob Cone P.	100 50' to 75'	3 THIN needles 8½" to 12"	 6¾" to 10¼"		 18" to 30"
<i>P. attenuata</i> - Western White P.	101 24' to 90' to 100'	5 needles 2" to 4"	6" to 10" 		 2½' to 4'
<i>P. attenuata</i> - Knob Cone P.	102 15' to 30' - sometimes 50 feet	3 needles (often twisted) 3' to 7'	closed to 6"		 6" to 12" Rarely - 20"

97. Torrey Pine*(Pinus torreyana)*

Exposed to high winds, it is a low sprawling tree; protected, it grows straight. Trees 10 to 12 inches in diameter are 75 to 80 years old. Cones hang to fourth year.

**98. Sugar Pine***(Pinus lambertiana)*

Usually found at 2,000-3,000 ft. elevation, chiefly on north slopes and canyons; the largest of the Pacific pines. Bears seed after 40-60 years; age 300-500 years.

**99. Jeffrey Pine***(Pinus jeffreyi)*

Very similar to No. 3. Best commercial growth found at 5,000-6,500 ft. altitude. Prolific seeder but heavy seeds do not blow far. A large bodied tree.

**100. Digger Pine***(Pinus sabiniana)*

Upper branches of older trees U forked. Foliage, thin and blue gray in color. In rich soil foliage heavier. Wood locally used for fuel; very coarse-grained.

**101. Western White Pine***(Pinus monticola)*

Some of its branches extend out beyond the others, at right angles to the trunk. Reproduces sparingly at irregular intervals of about 2 years. Wood of high commercial value.

**102. Knob Cone Pine***(Pinus attenuata)*

Tree varies under exposed or sheltered growth. Foliage a light yellow-green, cones mature the second year, though they cling indefinitely. Cones rarely open on the tree. Probably not long-lived.



Abies venusta - *Abies concolor* - *Tsuga mertensiana* - *Pseudotsuga macrocarpa* - *Picea sitchensis* - *Picea breweriana*

103					
	50' to 75'	$\frac{3}{4}$ " Flatish and Triangular	3" to 4"	Drooping Twigs	18" to 30"
104					
	80' to 180'	$\frac{3}{16}$ " to $\frac{1}{2}$ "	2" to 4"	CONE BUD	3' to 12'
105					
	30' to 75'	1"	$\frac{3}{4}$ " to 6"		14" to 20"
106					
	25' to 125'	$\frac{3}{16}$ " to $\frac{5}{16}$ "	$\frac{1}{2}$ " to 3"		1' to 3 $\frac{1}{2}$ '
107					
	80' to 200'	1" to 3"	3 $\frac{1}{2}$ " to 5"		2' to 6'
108					
	60' to 100'	TWISTED $1\frac{1}{4}$ "	2 $\frac{1}{4}$ " to 3 $\frac{1}{2}$ "		20" to 30"

-A.B. Janson

White Fir - Mountain Hemlock - Big Cone Spruce - Sitka Spruce - Weeping Spruce - Brillecone Fir -

103. Weeping Spruce*(Picea breweriana)*

Trunk is greatly enlarged at base, tapering rapidly toward top. Found at altitudes of 6,000-7,000 ft. on steep north mountain slopes. Intervals between good seedings probably two or three years.

**104. Sitka Spruce***(Picea sitchensis)*

Branches at base of tree often 20 or 30 feet long. Forest grown trees clear of branches for first 40 to 80 feet. Larger trees are from 400-850 years old. Found sea level to 3,500 ft.

**105. Big Cone Spruce***(Pseudotsuga macrocarpa)*

Found on dry soils 2,000-7,000 ft. altitude. Trunk is clear of branches only for a few feet. Leaves curved so as to appear to issue from two sides of stem.

**106. Mountain Hemlock***(Tsuga mertensiana)*

Leaves short and plump. Cones vary greatly in color, yellowish-green to bluish-purple. Trees grown in open have branches nearly to ground. Foliage of a season's growth shed about fourth year.

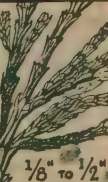
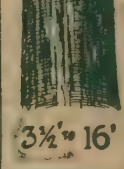
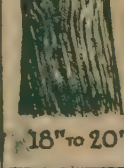
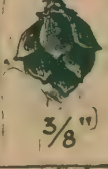
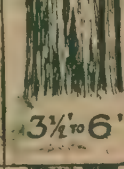
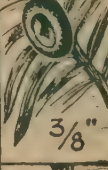
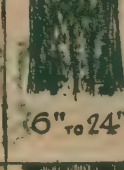
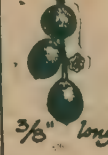
**107. White Fir***(Abies concolor)*

Bark ashy color; tree silvery in appearance. Lower branches of older trees droop. Young growth survives suppression of heavy shade. By a twist at base of leaves, they stand out distinctly from two sides of stem.

**108. Bristlecone Fir***(Abies venusta)*

Rare tree. Indian - club - shaped crown, with sharp spires. Trunk rarely clear of branches for more than few feet. Cones ripen in August and break up in September. Seed scale points protrude from cone scales.



Washingtonia filifera—Taxus brevifolia—Juniperus communis—Pinus strobus—Picea canadensis—Larix laricina—Thuja occidentalis—Cedrus deodora—Sequoia sempervirens—Libocedrus decurrens	109  75' to 110'	 $\frac{1}{8}$ " to $\frac{1}{2}$ "	 POD CONE 1" SEED		 2 1/2' to 6'
	110  150' to 200'	 $\frac{1}{8}$ " to $\frac{1}{4}$ "	 CONES OPEN $\frac{3}{16}$ "		 3 1/2' to 16'
	111  40' to 60'	 $\frac{1}{8}$ "	 1"		 18" to 20"
	112  125' to 180'	 $\frac{1}{8}$ "	 $\frac{3}{8}$ "		 3 1/2' to 6'
	113  20' to 50'	 $\frac{3}{8}$ " to $\frac{3}{4}$ "	 $\frac{3}{8}$ "		 6" to 24"
	114  35' to 40'	 $4\frac{1}{2}$ " broad	 $\frac{3}{8}$ " long	 SLANT: 5' to 6'	 20" to 30"

109. Incense Cedar
(*Libocedrus decurrens*)

In older trees, trunks taper rapidly; crowns, open and irregular. Male and female flowers, on separate twigs on the same branch, open in mid-winter. Cones ripen as in No. 108. Seeds contain clear red, odorous resin.



110. Western Red Cedar
(*Thuja plicata*)

Old trees very large at base. Except where crowded trees retain all their branches until they become 50-80 feet high. Sometimes the crown has two leaders. Wood survives exposure. Extensively used for shingles.



111. Monterey Cypress
(*Cupressus macrocarpa*)

Occurs near Monterey Bay. Cultivated elsewhere in California. Exposed to high winds, it sprawls along the ground. Bark—ashy white outside, deep red-brown beneath. Wood is aromatic and durable, though often too crooked to cut.



112. Port Orford Cedar
(*Chamaecyparis lawsoniana*)

Little known as forest tree. Great value as ornamental evergreen. Leaves small and scale-like, soft to the touch. Cones, small and russet-brown, open in October. Begins seeding when about 12 years old.



113. Western Yew
(*Taxus brevifolia*)

Slender branches stand out straight, bearing drooping branchlets. Leaves produced in one season perish in about five years. Fruit bright coral red. Birds fond of the outside of fruit; do not digest the seed.

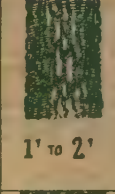
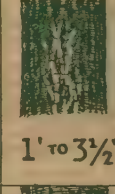
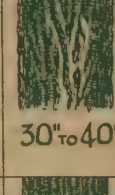
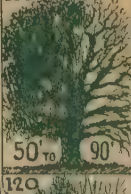
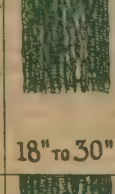
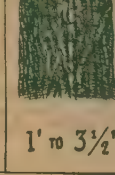


114. California Palm
(*Washingtonia filifera*)

Drooping dead leaves hang for many years covering the trunk nearly to the ground. Very popular for ornamental planting in the dry Southwest. Some are claimed to be over 200 years old.



Q. wislizeni - *Q. garryana* - *Q. lobata* - *Q. chrysolepis* - *Quercus agrifolia* - *Yucca arborescens*

115  18. 30'	 6" to 10"	 3" long		 1' to 2'
116  25' to 75'	 2" to 3½"	 1½" to 1¾"		 1' to 3½'
117  30' to 40'	 1" to 2½"	 1⅞" to 1⅞"		 30" to 60"
118  60' to 100'	 1½" to 3"	 1¼" to 2"		 30" to 40"
119  50' to 90'	 3½" to 6½"	 1½"		 18" to 30"
120  60' to 75'	 1" to 2"	 1" to 1½"		 1' to 3½'

Highland Live Oak - Oregon White Oak - Valley Oak - Canyon Live Oak - California Live Oak - Joshua Tree

115. Joshua Tree*(Yucca arborescens)*

Leaves armed with bayonet bristles. As leaves die they droop, forming thatch-like cover for trunk. The large roots descend to great depths. Wood has been used locally for physicians' splints.

**116. California Live Oak***(Quercus agrifolia)*

Thin, brittle leaves; resembling holly. Very long, thick, crooked limbs are given off from a short trunk. Acorn cups have the scaly edge turned in. Because of shape, wood used chiefly for fuel.

**117. Canyon Live Oak***(Quercus chrysolepis)*

An evergreen oak varying in size from heavy trunked tree to low dense chaparral brush. Leaves vary in shape, also in color from light yellowish-green to pale bluish-green. Acorns mature at end of second season.

**118. Valley Oak***(Quercus lobata)*

Largest of western oaks. Scattered growth chiefly in open valleys. Found from sea level to 4,500 ft. altitude. Acorns mature in one season. Wood useful chiefly for fuel.

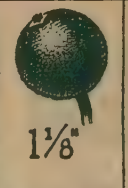
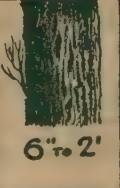
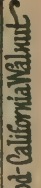
**119. Oregon White Oak***(Quercus garryana)*

Next in size to the Valley Oak. A low shrub on high mountain slopes or on exposed sea coast locations. Wood similar in quality to the eastern white oaks. Is the only timber oak of the northwest coast.

**120. Highland Live Oak***(Quercus wislizeni)*

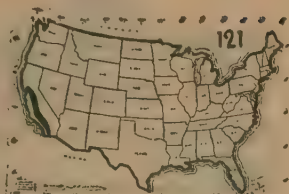
An evergreen oak. Leaves vary in shape and remain on two seasons. Acorns mature in two seasons. Wood has no especial economic use except locally for fuel.



<i>Asclepius californica</i>-Anelawner <i>ambrosia</i>-Umbellaria <i>californica</i>-Castanopsis <i>chrysophylla</i>-Populus <i>fremonti</i>-Juglans <i>californica</i>	121  25' to 50'	122  50' to 90'	123  80' to 100'	124  60' to 80'	125  8' to 10'	126  10' to 25'
Teeth 7 to 8 9617 leaflets	1 1/8"	2" to 3"	3/8"	1 1/2 to 4'	3' to 4'	3' to 6"
Leaf shoot	1" to 1 1/4"	3" to 6"	1"	2 1/2 to 4'	about 1"	3" to 7"
4 to 7 leaflets	2 1/3 to 3"	about 1"	3" to 6"	about 1"	3" to 6"	3" to 6"

121. California Walnut*(Juglans californica)*

Varies in size from a shrub to a tree. Edible nuts, spherical in shape covered with thin velvety husk. Wood used locally for cabinet work because of fine color. Grows along banks of streams.

**122. Fremont Cottonwood***(Populus fremontii)*

Very similar to Southwestern, Eastern and prairie species. Rough bark, dark grayish-brown on outside and clear red within. Useful chiefly for fuel. Trees help hold the shifting banks along streams

**123. Golden Chinquapin***(Castanopsis chrysophylla)*

So-called because of the yellow under surface of the leaves. Each season's leaves persist about three years. Wood provides excellent saw timber and is suitable for agricultural implements. Larger trees believed to exceed 500 years of age.

**124. California Laurel***(Umbellularia californica)*

An evergreen. Crushed leaves or bark, emit strong camphor-like odor. Each season's leaves persist two to five years. Fruit, yellowish-green, matures in one season, germinating shortly thereafter. Wood beautifully grained; used for cabinet making.

**125. Western Serviceberry***(Amelanchier alnifolia)*

Usually a shrub, sometimes a tree 25-30 feet high. Season's twig growth is clear red. Fruit is blue-black; is edible. Birds and bears eat much of it. Cattle browse on its stems. Re-sprouts persistently after fires. (See No. 68.)

**126. California Buckeye***(Aesculus californica)*

Usually shrub-like, sometimes tree. Found on foot hill and lower mountain slopes on stream borders and canyon sides. Chiefly useful as it forms cover where other trees do not readily grow.



Requirement No. 11 (1b)

"Or six species of wild birds, by their plumage, notes, tracks, and habits."

WILD

BIRDS	Name	Size	Color	Call	Wings	Tail	Head	Seen	Where
1									
2									
3									
4									
5									
6									

1

2

3

4

5

6

Test passedDate

SignedExaminer.

Some Thrills of Bird Study

(DR. A. H. HADLEY—National Association of Audubon Societies.)

Of all the wild kindred there is little doubt that the birds have most completely won their way into the mind and affections of man.

The farmer, as he goes about his daily task, is cheered by the presence of familiar birds. The ranchman finds them as he gallops over the dusty plains or the wide prairies. The fur-trader finds them in the vast solitudes of the northern woods. The traveler in equatorial regions meets them in the steaming depths of tropical forests. On the far-flung lonely islands of the sea they are to be found; and the arctic explorer is greeted by them as far



S=size of English Sparrow; S-, smaller; S+, larger.

R=size of Robin; R-, smaller; R+, larger.

C=size of Crow; C-, smaller; C+, larger.

Drawings by Louis Agassiz Fuertes, Courtesy Comstock Pub. Co., Ithaca, N. Y.

north as land has been discovered. The tired city-dweller, even, has them within easy reach, as he visits the parks, or as perchance they condescend to come to his back yard for food and water, and there are indeed few of us who may not attract them about our homes by the exercise of a little friendliness and forethought.

In the United States and Canada alone there occur approximately 1,200 species and sub-species of birds. What a vast field for study this affords!

Now there are three ways in which we may be interested in birds, yet real bird-students and bird-lovers combine them all.

(1) SCIENTIFIC INTEREST

It is, of course, very desirable that we know what a bird is, the place it occupies in the scheme of Nature and the relationship it bears to other forms of life. In all the realm of Nature Study there is no more fascinating story than the life-history of a bird. The courtship, the nest-building, the entire home-life of birds makes a narrative as interesting as fiction, and it is a field that has barely been touched.

Nature has used wide range of variation and adaptation to help our feathered friends meet the problem of living. Contrast the tiny Hummingbird that feeds from the corollas of flowers with the swift, powerful Goshawk that, drifting down before the cutting blasts of the Arctic winter, smites the hovering grouse or the crouching hare! Compare the little Brown Creeper, that climbs about the tree trunks diligently searching in every crevice and cranny for the insects and larvae which constitute its fare, with the Pelican which plunges into the sea for the fish which are its food.

Then the notes or voices of birds. How far removed is the mellow flute-like song of the Ruby-crowned Kinglet from the scream of the Eagle! Then compare the slender



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Drawings by Louis Agassiz Fuertes, Courtesy Comstock Pub. Co., Ithaca, N. Y.

insect-like ditty of the little Grasshopper Sparrow, which rises up from our meadows and fields, and can at best only be heard for a distance of a few rods, with the resonant trumpet call of the Sand-hill Crane, which under favorable conditions can be heard for several miles.

(2) ECONOMIC INTEREST

It is difficult to imagine what would happen if all bird life should suddenly be destroyed from off the face of the earth. Through the eating of noxious insects and weed seed and the destruction of small rodents birds play a vastly important part in helping to maintain that fine balance of Nature without which human life might become very difficult, if not impossible.

Every winter multitudes of Tree Sparrows and Juncos come flocking over our snow-covered fields, spending their days eating weed-seeds. Professor Beal of the Biological Survey has estimated that the Tree Sparrows in the state of Iowa alone, during their sojourn, consume over 800 tons of weed seeds! Add to these the incalculable number of other seed-eating and insectivorous birds, and we have a vast and aggressive army that is constantly fighting in the interests of our farmers and fruit-growers.

(3) ESTHETIC INTEREST

However we should be very unappreciative if we were only concerned with birds from the standpoint of their scientific interest or their economic value. What would Springtime in North America be without the Robin and the Bluebird? Then again who does not love to hear the cheery whistle of Bob-white as it comes to us across the fields of mid-summer or on crisp Autumn mornings.

The cry of the Loon, the scream of the Red-tailed Hawk and the booming of the Bittern all speak to us of the spirit of the wilderness itself.



S=size of English Sparrow; S-, smaller; S+, larger.
R=size of Robin; R-, smaller; R+, larger.
C=size of Crow; C-, smaller; C+, larger.

Drawings by Louis Agassiz Fuertes, Courtesy Comstock Pub. Co., Ithaca, N. Y.

The song of the Mockingbird heard about the gardens of the southland, the cheery whistle of the Cardinal from out the haw thicket, the sweet pastoral fluting of the Meadowlark amidst the greening fields of early Spring, and the rippling, rollicking song of the Bobolink just back from his winter home in South America—all these things add a real zest to our experiences in the out o'doors.

USEFUL BOOKS ON BIRDS

Handbook of Birds of Eastern North America, by Frank M. Chapman.
Handbook of Birds of the Western United States by Florence Merriam Bailey.

Field Book of Birds of the Southwestern United States—Wyman and Burnell.

Bird-Life, by Frank M. Chapman.

Travels of Birds, by Frank M. Chapman.

The Bird Study Book, by T. Gilbert Pearson.

Birds of the Pacific Coast, by Willard Ayres Eliot.

Tales from Birdland, by T. Gilbert Pearson.

Stories of Bird Life, by T. Gilbert Pearson.

Our Winter Birds, by Frank M. Chapman.

Citizen Bird, by Mabel Osgood Wright.

Pocket Handbooks, by Chester A. Reed.

Land Birds East of the Rockies.

Water Birds East of the Rockies.

Land Birds West of the Rockies.

OFFER OF THE NATIONAL ASSOCIATION OF AUDUBON SOCIETIES

The National Association of Audubon Societies each year furnishes at a price of ten cents, which is half the cost of printing, a special set of Bird Leaflets with colored pictures of birds. These are furnished to groups of ten or more and anyone who organizes a bird-study club of 25 or more receives a year's free subscription to the magazine *Bird-Lore*. The Audubon Society also offers over 125 Bird Leaflets with pictures in color which may be had at the price of 5 cents each, which represents the cost of printing. Any Scout may receive full information by writing to the National Association of Audubon Societies, 1974 Broadway, New York City.

Bird Migration

By *FREDERICK C. LINCOLN*
*Associate Biologist, Bureau of Biological Survey,
U. S. Department of Agriculture*

Historical

From the earliest historical times, the attention of man has been attracted to the northward journey of the birds in the spring and their return in fall. Probably the most ancient reference to these travels of the winged hosts is found in the Bible, where, in the Book of Job, we read, "Doth the hawk fly by thy window and stretch her wings toward the south?" Other early writers, particularly the Greeks, made frequent mention of the birds of passage.

In answer to the oft-repeated question, "Why do birds migrate?" It must be stated that we do not have any positive knowledge as to the original causes. It may be that before the Ice Age or glacial epoch, many species of birds that are migratory (or closely allied relatives) were then resident and were driven southward by the advance of the ice, which forced them to establish new homes closer to the equator. But the love of the more northern latitudes was strong and the birds moved northward each time the ice retreated, only to be driven back as it again advanced.

Or it may be that the tropical regions were the ancestral home of all the birds, but that due to overcrowding, certain species were forced to seek new



surroundings in which to build their nests. Pushing north and south, first in short exploring trips, and being regularly pushed back by the advent of winter, they gradually learned to maintain both summer and winter homes.

The majority of North American migratory birds spend their winter months in the southern United States, Mexico, Central America, the islands of the Carribbean Sea, and northern South America. Some species, such as the Nighthawk, Golden Plover, Yellowlegs, Cliff Swallow, Scarlet Tanager, and Bobolink do not stop even at the equator, but fly on south as far as the pampas regions of Argentina or Patagonia.

It is true that some birds do not migrate and are content to brave the storms of winter in a constant effort to obtain sufficient food. Thus we find Bobwhites, Cardinals, some Wrens, Chickadees, and others, present in some places during the entire year.

Distances Traveled

Many of the Shorebirds, Thrushes, and Swallows, the Bobolink, Nighthawk and Scarlet Tanager, birds that are well known around our homes in summer, are in winter found in different type of country in South Argentina or Patagonia. In Europe a



similar condition exists, and most of the northern nesting birds winter around the Mediterranean Sea or in Africa.

The Nighthawk occurs in summer north to northwestern Canada, and in winter south to Argentina, fully 7,000 miles away. Several species of Sandpipers that breed north of the Arctic Circle go south in winter as far as Patagonia in the most southern part of South America, thus flying about 16,000 miles in making the annual round trip.

The world's record as an aerial traveler, however, is held by the Arctic tern, a graceful species of water bird that nests as far to the north as land has been discovered, and which in winter is found in the vicinity of the Antarctic continent, 11,000 miles from the area where their nests are made.

Sense of Direction

How do the birds find their way over such vast expanses of land and water? This is by far the most wonderful feature of bird migration and also of our common doorway species that

is the most difficult to explain. Some that gratefully accept our hospitality and build their nests in the boxes placed for their use, will return year after year.



The eye of a bird is probably the most perfect organ of vision in Nature and this, supported by an excellent memory, no doubt goes far in guiding them on their way. But without assistance from another agency, these would not be sufficient. In all probability the "sense of direction," a kind of "sixth sense," is all powerful in directing the flight. There are some persons who have this sense developed to a remarkable degree, particularly woodsmen who all their lives have lived in the dense forests, where landmarks are almost totally lacking, but who never seem to be lost. In the case of the Homing Pigeon this sense is carefully developed and exploited by fanciers for the carrying of messages or the winning of races. In the migrating birds it serves much the same purpose, guiding them to their homes in the north and back again to winter quarters after the nesting period.

Speed

There is a very general misconception concerning the speed that is made by birds in flight. Frequently we will hear some one speak of a certain bird or a flock of birds that were flying "a mile a minute." There are undoubtedly many birds that can and on occasion do make speeds even greater than that. The ducks, the shorebirds, the falcons, the swifts, and some others, are noted for the rapidity of their flight, particularly when pursuing game or attempting to escape from an enemy. During the World War, an English ornithologist serving in the air service gave chase in his airplane to one of the larger European hawks. He found that in



diving to escape the plane, this hawk attained a speed of 110 miles an hour.

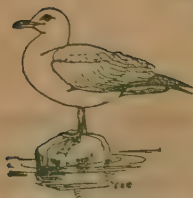
Such speeds are nevertheless very exceptional, and it is safe to say that very few birds can, even when pressed, develop a speed of sixty miles an hour. Thirty or forty miles an hour is more nearly the average speed, and during migration flights it may be even less.

Energy Expended in Migration

No other living creature is so perfectly designed for sustained travel through the air as a migratory bird. Powerful wing muscles are attached to a skeleton that is of great lightness, due to hollow bones that are filled with air, while of all materials intended to support a body in the air, nothing can be imagined to exceed a feather in perfection. The typical feather has a rather complicated structure, which can not be discussed here. It is sufficient to suggest that the wing feather of a pigeon or other bird be examined carefully under a microscope if possible.

A good idea of the economy of the bird as an aerial machine may be cited in referring to the Golden Plover, a shorebird that breeds in the northern part of this continent and winters in South America. In its fall migration it is almost unknown in the United States, so we feel sure that it flies south, not along the coast, but far out to sea. That means a non-stop flight from Nova Scotia to South America, a distance of about 2,400 miles. Less than two ounces of fuel, in the form of the fat on the bird's body, is all the energy that is required. To make such a trip, a light scout airplane would probably consume 120 gallons of gasoline, in addition to oil, but if it were as economical of fuel as the Golden Plover, all it would need would be about fifteen gallons.

These are only a few of the interesting features of a subject that deserves careful attention from everyone interested in the preservation of native birds.



Herring Gull



Black Duck



Canada Goose



Mallard Duck



Green-winged Teal



Pied Bill Grebe



Red-breasted Merganser



Snipe

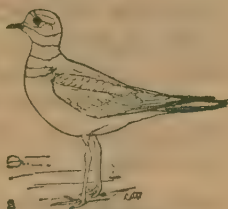


Loon



Woodcock

Wood Duck



Killdeer



Horned Grebe



Common Pigeon

Useful Birds

ENEMIES OF INSECTS.

Of insects in open air: Barn Swallow, Chimney Swift, King Bird, Phoebe, other flycatchers and swallows.

Of insects on flowers, leaves and twigs of fruit trees: Chickadee, all Warblers, Red Winged Blackbird, Bluebird, Cedar Waxwing, Catbird, Humming Bird, Pine Siskin, Kinglet, Vireos, and numerous others.

Of insects on the bark and wood of fruit trees: Brown Creeper, Nuthatch, Downy Woodpecker, Hairy Woodpecker.

Of insects on the ground: Meadow Lark, Flicker, Bob-white, Song Sparrow, Bobolink, Horned Lark, Vesper Sparrow, Towhee, and others.

Of insects in damp places: Spotted Sandpiper, Bronzed Grackle, Red Winged Blackbird.

ENEMIES OF WEEDS.

Of weeds in summer: Goldfinch, Bob-white, Chipping Sparrow, Pheasant, Mourning Dove, Song Sparrow.

Of weeds in winter: Tree Sparrow, Redpoll, Snow Bunting, Junco, White Throated Sparrow, Bob-white.

ENEMIES OF MICE.

By night: Great Horned Owl, Screech Owl, Barred Owl, Long-eared Owl, Short-eared Owl, Barn Owl.

By day: Snowy Owl, Marsh Hawk, Red Shouldered Hawk, Sparrow Hawk, Crow, Rough-legged Hawk, Broad-winged Hawk, Shrike and others.

Destructive Birds

Birds of positive damage as destroyers of crops and of more desirable birds: Crow, Cooper's Hawk, Great Horned Owl, Goshawk, Snowy Owl.

Birds undesirable because of disagreeable habits in relation to other birds: Cow-bird (that allows other birds to rear its young), English Sparrow, Starling.



Rough-
legged
Hawk



Sharp-shinned Hawk



Duck Hawk



Sparrow Hawk



Broadwing Hawk



Pigeon Hawk



Red Shouldered
Hawk



Red-tailed
Hawk



Osprey
or Fish Hawk



Marsh Hawk



Cooper's Hawk



Goshawk

Requirement No. 11 (1c)

“Or six species of native wild animals by their form, color, call, tracks, and habits.”

TEST MEMORANDUM

WILD	Length	Seen
Animals Name	Body Tail Fur Color Head Ears Feet Call	When Where

1

2

3

4

5

6

Test passed

Date Signed Examiner

WILD ANIMALS A SCOUT MAY MEET

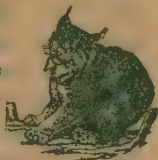
*By Major Edward A. Goldman, Biological Survey, U. S. Dept. Agr.
(Drawings by Leonard Rossell)*

The mammals are the highest class of animals, but most of them are shy and retiring in habits; very many come out only at night and therefore are comparatively little known. They are everywhere, but not easily observed. To penetrate something of the mystery of their lives, to learn some of their well-guarded secrets, is the privilege of the Scout. The brief treatment here merely suggests the scope of the field to be covered.

THE CAT FAMILY

The Bobcat, or Bay Lynx (*Lynx rufus*)

A Scout may meet a bobcat, bay lynx, or wildcat, as the smaller of the two lynxes is called, in the timber in almost any part of the United States. In the northern part of the country, its general range overlaps that of the Canada lynx. The tail is bobbed, but the black limited to the upper side, and the ears are tufted as in the Canada lynx from which it differs, however, in much smaller size (usually less than 20 pounds as compared with 30) and the slenderness, especially of the legs and feet. Bobcats kill for food many rabbits, squirrels, mice of the fields and woods, quail, grouse, and other ground frequenting birds. It sometimes becomes bold enough to raid chicken roosts and even kill lambs and young deer. Owing largely to its destructiveness to game, the bobcat is generally regarded as injurious to human interests and its numbers should be kept under rigid control.



(Tracks 2½ inches; see page 154)

The Mountain Lion (*Felis conguar* and relatives)

This big cat, known as mountain lion, cougar, puma, and panther, roams over more territory than any other American mammal, and yet is rarely seen. It once ranged from Canada to Patagonia and across the entire width of both northern and southern continents. With the settlement of the country, however, and the disappear-



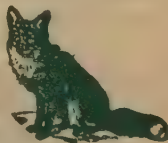
ance of the larger game, upon which it preys, it has become extinct over great areas in the Eastern United States. It is still generally distributed, however, wherever large game is found, in the wilder, unoccupied areas of the west, and in the vast forests of Central and South America. It is a thin-bodied, lightly built gray or tawny cat, with a small head and handsome face. The mountain lion is timid and inoffensive to man, but very destructive to deer and other large game animals, and to domestic stock, especially horses, on open ranges. Estimates based on observations regarding the extent of its inroads indicate that on ranges where deer are fairly abundant the lions probably kill 50 to 100 per year; on some stock ranges these animals unmolested render it impossible to raise colts, and so much other stock is destroyed that their presence becomes intolerable. As a result they are being systematically hunted in many sections of the west.

(A cat track some 4 inches across; see page 154)

THE DOG FAMILY

The Red Fox (*Vulpes fulva* and relatives)

The general range of the red fox is through the forested regions from Alaska and Canada south to Texas, but it does not occur in the western mountains south of central California and New Mexico, and is replaced on the open, western plains by the smaller, grayish, desert and kit foxes. The red fox of normal color is well marked by the red coat and white-tipped tail.



Color variations are the black and silver foxes, so extremely valuable for their fur, and the cross fox a combination of the black and red. The rearing and selective breeding of foxes in captivity, for their fur has

in recent years become so lucrative an industry that millions of dollars are invested in it.

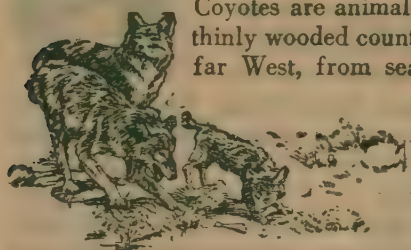
The cunning of the red fox is proverbial, and in spite of much hunting and trapping it remains a resident of the most densely settled country. The gray fox ranges from the Northern States to Costa Rica.

(Tracks similar to those on page 152)

The Coyote (pronounced *kō-yō'tě*) (In West, *Ki'ote*)

(*Canis latrans* and relatives)

The small feet and small nose pads readily serve to separate the coyote from the large wolf of any age.



Coyotes are animals of open plains and thinly wooded country of the middle and far West, from sea level to the lower

edge of permanent snow on the highest mountains. Unlike many other animals that have

disappeared from vast areas as the country was settled the coyotes adapted themselves to civilized conditions and have become the most troublesome predatory animal with which we have to deal. They are now found in places east of their original domain, and they followed the trail of the gold miners northward, spreading into the Yukon and Mackenzie River valleys. Unlike the large wolves that require larger game or domestic stock for subsistence, and that disappear when these are lacking, coyotes thrive by feeding upon a great variety of smaller animals including many rodents, and small game such as young rabbits and quail, but crave a change of diet and kill many young deer, antelope, and other game, sheep, goats, and other live stock. Coyotes may often be

seen abroad during the day and lend interest to an otherwise dreary landscape, but their power for harm has forced the Federal and western State governments to adopt methods for their control.

(Tracks similar to those on page 152, only claws more prominent)

The Gray Wolf (*Canis nubilus* and relatives)

Wolves formerly infested nearly all of North America as far south as the Valley of Mexico, except certain arid desert regions and tropical lowlands. Owing to their size, strength and ferocity they were undoubtedly the greatest foe of the big game that inhabited the region in vast numbers. With the denser settlement of the country, however, they were hunted down and have been gradually disappearing along with most of the large game upon which they are mainly dependent. In the far west, especially on stock ranges, as the game decreased in numbers these marauders turned their attention to domestic animals and became so destructive that campaigns against them are being carried on by Federal, State and county forces. As a result, comparatively few now remain in most parts of the country. In the far north, white Arctic wolves still harass the great herds of caribou and menace the musk ox much as their relatives formerly did the game herds farther south. As nature lovers we are loath to contemplate the extinction of any animal, but the wolf has proven himself to be so destruc-



DISTANCE SILHOUETTES

tive that he is regarded as an outlaw and must be dealt with accordingly.

(*Wolf tracks similar to those on page 152, only larger than coyote or fox*)

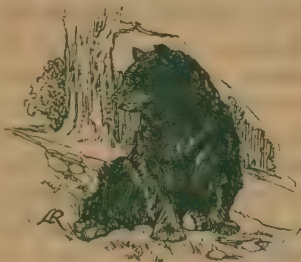
THE BEAR FAMILY

Bears of four principal types inhabit North America. The peculiar white polar bear adapted to a life on the ice, and in the waters of Arctic seas is not likely to be met with by the Scout.

The Black Bear (*Euarctos americanus*)

The black bear formerly ranged throughout the forested areas from the northern limit of tree growth in Canada and Alaska, south to Mexico.

Owing to the settlement of the country they have disappeared over much of this territory, but are still not uncommon in some sections. The cinnamon bear, still believed by many to be of another kind, is only a variation of the black, and cina-



mon cubs are sometimes found in the same litter, and are therefore the same species. Bears in general vary much in color, but the sharp, strongly curved claws of the black species serve to separate it from the grizzly bear of any size. These claws enable them to climb trees very readily. These bears are generally harmless and should be protected except during certain seasons when regulated hunting may be permitted in some places.

The Grizzly or Silver-Tip Bear (*Ursus horribilis*)

Grizzly bears range from Alaska southward through the high mountains of the west to Mexico. Not all



grizzlies are grizzled. Some resemble cinnamon color phases of the black and other species, and the most reliable way of distinguishing them at a glance is by the great length (often 2 or 3 inches),

slight curvature, and bluntness of the claws on the fore feet. With such claws the grizzly bears lack the tree-climbing powers of the smaller black bear. The early explorers of the Rocky Mountain region gave the grizzly bears, which were found numerous in places, a reputation for ferocity not shared with any other animal. Since the general occupation of the country by man they have disappeared much more rapidly than the black bears, and are now rare or entirely gone from much of their former range; and with lessened numbers the grizzlies have become as shy and retiring as the black bears. The grizzly bears are exceeded in size by the great brown bears of the Alaskan coasts and islands, which are the largest bears in the world.



Alaskan Brown Bear

(For tracks see page 351.)

THE WEASEL FAMILY OF FUR-BEARERS

The weasel family consists of a varied assortment of fur bearers, differing widely in habits and appearance. It includes, besides the weasels, the mink, otter, and the skunks.

The Weasels (*Mustela cicognanii* and relatives)

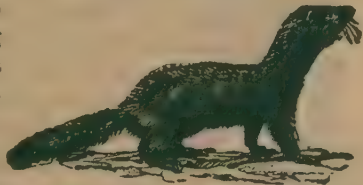
The weasels comprise several kinds of small, but deadly, enemies of birds and of rodents often much larger than themselves. These ruthless little hunters, roaming nearly everywhere, kill not only for food, but for the sheer love of killing. Birds of nearly all kinds, including game species and poultry, also rabbits, squirrels, chipmunks are among their victims. The fur is valuable, but owing to their destructiveness, weasels are outlawed in many places.



(Footprints shown on page 153)

The Mink (*Mustela vison* and relatives)

The mink, really a large weasel, lives usually in the woods near the water. Like the weasel it is blood thirsty and kills far beyond its needs for food. Owing to greater strength it is able to overpower larger game than the weasel. It is frightfully destructive on the nesting grounds of ducks and other water fowl. Many small woodland creatures are preyed upon, and it loves to enter the water, swimming and diving expertly, in pursuit of muskrats, fish and other aquatic animals. Owing

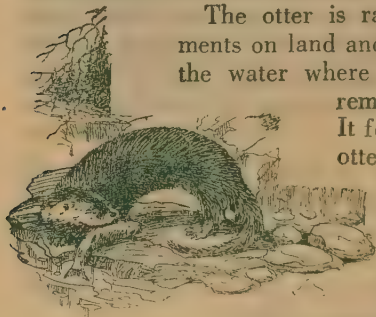


to the outstanding excellence of the fur, the mink is persistently trapped and its numbers have been greatly reduced, though the way it survives in places is astonishing. It is savage and courageous.

(See the mink tracks on pages 148 and 152)

(Weasel, mink and marten tracks differ chiefly in size and in increasing order)

The Otter (*Lutra canadensis* and relatives)



The otter is rather clumsy in its movements on land and is much more at home in the water where it dives and swims with remarkable ease and swiftness. It feeds largely upon fish. The otter was formerly common and generally distributed along streams and lake shores, but has been trapped for the fur until it is now rare.

(Tracks shown on page 154)

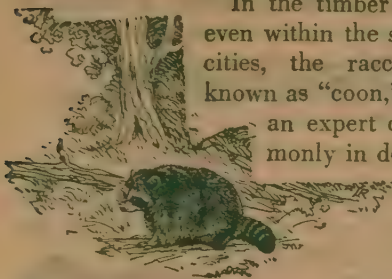
The Skunks (*Mephitis mephitis* and relatives)

Skunks are best known by their odor, which is overpowering and creates in most animals, including man, an almost uncontrollable desire to avoid close contact with them. There are three principal kinds varying widely in size and color markings, but not so much in smell.

The furs of the striped and spotted skunks are very handsome and desirable when relieved of the characteristic odor. The track above is at a gallop.



The Raccoon (*Procyon lotor*)



In the timber near streams or lakes even within the suburbs of some of our cities, the raccoon, more familiarly known as "coon," makes its home. It is an expert climber and lives commonly in dens in hollow trees and

seeks safety in such places when pursued by men and dogs at night. It is gratify-

ing to know that the coon is holding its own in places where many of the other larger animals are no longer found.

(See tracks on page 149)

The Virginia Opossum (*Didelphis virginiana*)

The opossums are American representatives of the order of Marsupials, or pouched mammals, mainly confined to Australia. The young are very small and helpless when born and are placed in a pouch formed by a fold of the skin on the abdomen of the mother where they remain for some time attached to the teats. The opossums live mainly in the tropics, and there are many kinds varying from tiny mouse-like creatures to our Virginia species which has spread northward to Canada, and has secured a foothold where introduced in southern California. Its habit of "possoming" or pretending death in emergency is a peculiar characteristic, not shared with other opossums which fight savagely when disturbed.



(For tracks, see page 150)



THE SQUIRRELS, RABBITS, PORCUPINES AND OTHER RODENTS



The Tree Squirrels (*Sciurus carolinensis* and relatives)

The squirrels are everywhere woodland favorites owing to their sprightly habits, grace and beauty. There are various kinds, differing considerably in habits and distribution. After mentioning the gray and red and fox squirrels of the eastern and southern States, we may pass on to several western species including the beautiful Albert and Kaibab squirrels of Colorado, New Mexico and Arizona, which in winter bear long, erect tufts of hair on the ears.



(See tracks on page 153)

The Flying Squirrels (*Glaucomys volans* and relatives)



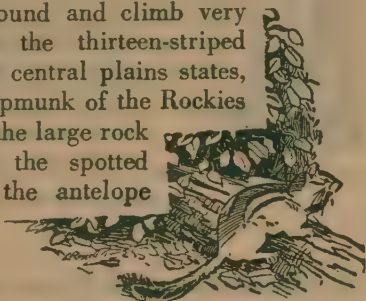
The so-called flying squirrels do not really fly. They differ from other members of the squirrel family, however, in the extension of the skin along the sides between the fore and hind limbs. When they leap with outstretched limbs from a high point on a tree this membrane acts as a parachute and enables them to glide downward and across to a lower place on another tree. Two principal kinds are nocturnal in habits and little known.

(Tracks similar to those on page 153)

The Ground Squirrels

(*Citellus tridecemlineatus* and relatives)

The ground squirrels comprise a varied assortment of middle and far western members of the squirrel family that burrow in the ground and climb very little. These include the thirteen-striped ground squirrels of the central plains states, the beautiful golden chipmunk of the Rockies and the Sierra Nevada, the large rock squirrel of the west, the spotted ground squirrel, and the antelope "chipmunk" of the desert southwest, the latter with the short, conspicuously white



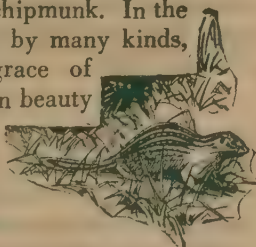
GOLDEN CHIPMUNK

tail doubled stiffly forward over the back. Ground squirrels are abroad during the day and have many habits that are interesting to observe, but are destructive to crops in places, and measures to reduce excessive numbers have sometimes become necessary.

(Tracks similar to chipmunk, page 151)

The Chipmunks (*Tamias striatus* and relatives)

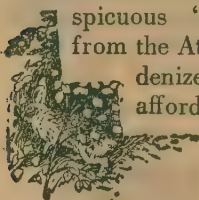
Many Scouts meet the eastern chipmunk. In the western mountains it is replaced by many kinds, similar in sprightliness and grace of movement, but differing notably in beauty of coloring. Chipmunks burrow in the ground; but are commonly seen perched on a rock or stump. They climb trees to some extent but lack the agility of the tree squirrel.



(Tracks shown on page 151)

The Cottontail Rabbits (*Sylvilagus floridanus* and relatives)

Several kinds of cottontail rabbits, and their allies the brush and swamp rabbits which lack the conspicuous "cotton tail" range collectively from the Atlantic to the Pacific Ocean. These denizens of the briar and brush patch afford pleasure to those who love to watch them when at rest, or their headlong dash for cover at the least alarm.

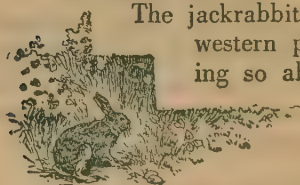


(See tracks on page 148)

The Jackrabbits and Hares (*Lepus californicus* and relatives,

The jackrabbits are inhabitants of the western plains sometimes becoming so abundant that field crops are destroyed, and poison campaigns are organized against them.

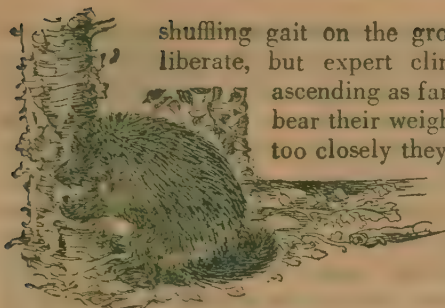
Unlike the jackrabbits, the varying hares, or snowshoe rabbits are forest animals (see sketch on page 101). They range south from the northern woods along the high mountain ranges to West Virginia, New Mexico and California. Like some other northern animals they become white in winter.



Snowshoe
Rabbit

The Porcupine (*Erethizon dorsatum* and relatives)

The northern porcupine, with its spiny armament, is one of the most remarkable of American rodents. Allied species with prehensile tails inhabit tropical forests from Mexico to South America. Porcupines range in the northern forests across the continent. They have a slow,



shuffling gait on the ground and are deliberate, but expert climbers in a tree, ascending as far as the limbs will bear their weight. When crowded too closely they turn their backs, bristling with criss-crossed spines, to the enemy, and a quick side slap

of the tail, leaving spines driven deeply into the skin and flesh of the intruder who approaches too close, is no doubt the basis for a common belief that porcupines "shoot" their quills. In spite of the protective spines they are sometimes killed and eaten by mountain lions. Porcupines feed largely on bark, and where very abundant, girdle and destroy much timber.

(The tracks are shown on page 154).

The Beaver (*Castor canadensis*)



The beaver is the largest North American rodent. The thick fur, hind feet webbed between the toes, and the broad, flat, scaly tail fit it for a home largely in the water.

Trees, sometimes 2 feet or more in diameter, are felled, with the large chisel-like front teeth. Many small branches, the bark of which serves as food, are then lopped off

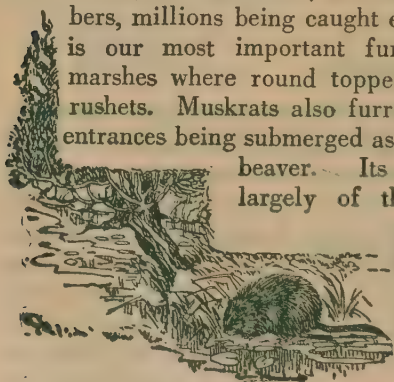
and firmly embedded in mud and used in the construction of dams. Beavers are excellent engineers and these dams are designed to maintain a uniform water level

covering the entrances to their burrows and houses. At the time of the discovery of North America they were found in great abundance in suitable places along streams and the shores of lakes wherever timber grew, from the Atlantic to the Pacific coast, and from Alaska and north-western Canada to the Mexican border. Owing in part to the value of the skins for furs the beavers have been much persecuted and no longer occur over a large section of the former range. In places beavers cause damages to human interests by cutting down trees in orchards, or by undesired flooding.

(Beaver foot and tail tracks are shown on pages 152 and 153)

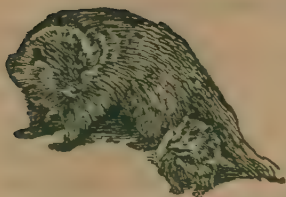
The Muskrat (*Ondatra zibethica*)

Like the beaver, the muskrat is adapted to a life largely in the water; the hind feet are webbed and the tail is flattened along the sides to serve as a rudder. The fur is dark brown, soft and thick; and owing to the great numbers, millions being caught each year, the muskrat is our most important fur-bearer. It inhabits marshes where round topped houses are built of rushets. Muskrats also furrow in banks, the entrances being submerged as are those of the beaver. Its food consists largely of the tender, succulent stems of various aquatic plants.



The Woodchuck (*Marmota monax* and relatives)

This is the "groundhog" referred to in the old superstition which expected him to break his winter sleep and



come out of his burrow for weather observations on February 2, called therefore "groundhog day." The woodchuck is active during the day and is therefore fairly well known. A larger, grayish

western species, the whistler (*Marmota caligata*) is found in the Rocky Mountains as far south as New Mexico and in California.

The woodchuck, really just a kind of big ground squirrel, commonly lives in the woods where it burrows under rocks, ledges or other shelter, often ranging out into the open fields where it may be destructive to cultivated crops. As it comes out during the day, and wanders about in the vicinity of the burrow it is readily seen, and has become better known than many other animals. Dogs are fond of chasing the woodchuck which when overtaken turns and, using its large teeth, fights savagely.

(See tracks on page 152)

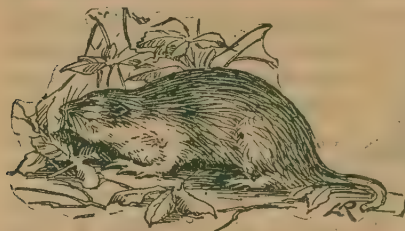
The Prairie Dogs (*Cynomys ludovicianus* and relatives)

Prairie dogs bark, but are not dogs. They are rodents closely related to the ground squirrels. There are two principal kinds, the black-tailed prairie dogs of the Great Plains, and



the white-tailed prairie dogs of the high plateau region farther west. Sitting stiffly erect at the entrance to their burrows these inhabitants of the open country are conspicuous and have always been objects of interest to passing travellers.

The Pocket Gopher (*Geomys bursarius* and relatives)

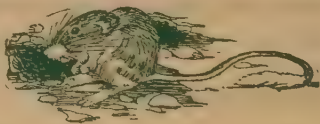


The pocket gophers comprise a large group of rodents adapted, like the moles with which they are sometimes confused, to a life almost en-

tirely underground. They are strongly built animals, with large front teeth, and heavy muscular fore limbs armed with stout claws for digging. Pockets in the cheeks are used for carrying food. They range from Canada to Panama. Hills of earth thrown out mark the location of elaborate underground workings. They multiply and cause much damage to crops in places, and trapping or poisoning becomes necessary to control them.

The Kangaroo Rats (*Dipodomys ordii* and relatives)

Kangaroo rats are neither kangaroos nor rats nor any combination of the two. They comprise several kinds of handsome,



odd-appearing rodents of a peculiar family widely distributed in the arid regions of the West. In size they range from large mice to rather large rats. They are somewhat kangaroo-like in form, posture and gait, the hind limbs enormously developed for jumping and the fore limbs small and weak. Pouches in the cheeks are for carrying food. The tail is long and has a brush at the end. The very large eyes, and bright color markings, including white diagonal hip stripes, and the large brush-tipped tail distinguish kangaroo rats from all other animals. They are burrowing animals. Allied to the kangaroo rats are the little pocket mice. (*Perognathus*)

(See page 372)

(For tracks see pages 150 and 151)

THE DEER FAMILY

Americans have good reason to be pleased with their allotment of the deer of the world, because North America's share of species far surpasses the showing of all other continents, including Asia. We have the giant moose, the picturesque caribou, the lordly elk, the strictly American groups of white-tails and black-tails, and the little-known brockets of Mexico and Central America.

The Moose (*Alces americana*)

The moose, with its giant size, ungainly form, turned down nose, and the enormous, flattened antlers of the bulls scarcely suggests a deer, yet it is the largest member of the deer family. The moose is



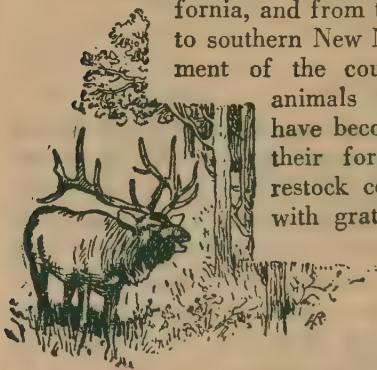
at home in the northern forests from the Mackenzie and Yukon river valleys south to Maine, Minnesota, and Wyoming. It is larger in some parts of its range than in others, those from the region of the Kenai Peninsula in Alaska being the largest in the world. Here some of the bulls weigh over 1,400 pounds and the huge antlers spread 6 feet

or more. It favors thickets of tamarack, birch, aspen, willow, spruce, and alder, growing in swampy places. It enters the water freely, and may sometimes be seen holding the entire head under the surface in reaching for deep growing water plants. Moose are usually very shy, but during the breeding season, bulls may stand their ground and have even been known to charge a hunter.

(Tracks similar to those on page 154, only larger)

The American Elk or Wapiti (*Cervus canadensis*)

The elk is the most majestic of all deer. The American elk, a near relative of the stag of the Old World, is a massive animal, full grown bulls weighing over 800 pounds. In the days of the early settlers they ranged in great abundance nearly across the continent. They occupied the vast territory from central Massachusetts and North Carolina to near the Pacific Coast in California, and from the Peace River, Canada, to southern New Mexico. With the settlement of the country these large game animals were crowded out and have become extinct over most of their former range. Efforts to restock certain sections have met with gratifying success, however, and elk are in no danger of extermination.



The elk in and about Yellowstone Park are of special interest as under protection in that region they have survived in greatest numbers and there we can visualize what the former great herds were like. Efforts to provide sufficient winter forage for some of the elk led to the establishment of the elk refuge at Jackson, Wyoming. Here thousands of confiding animals congregate in winter to be fed, and present a wonderful spectacle. Although apparently so lacking in fear when on the feeding and resting grounds the elk regain their customary wildness when they return to the mountains in summer. Many elk are also fed in winter in Yellowstone National Park. There are over 40,000 elk in and about Yellowstone Park; 9,000 more in the Olympic peninsula in Washington. Other herds are found in Canada.

(Large tracks like those on page 154)

The Virginia, or White-Tailed Deer

(*Odocoileus virginianus*)

White-tailed deers are of several kinds, ranging as a group from Southern Canada to South America, except near the Pacific Coast north of Sinaloa, Mexico. The Virginia deer is the best known. The Coues deer inhabits Arizona and Western Mexico. The antlers of the white-tails consist of a main beam with smaller branches, unlike the evenly divided prongs of the black-tail and mule deer. Who can forget a pleasurable thrill at seeing a white flash where apparently nothing had been before as a woodland beauty in the form of a startled white-tailed deer bounds away? This deer is still common, in places, but through settlement of the country, and too much unregulated hunting has entirely disappeared from large sections. Experience has indicated the practicability of reintroducing deer in regions still favored by nature to support great numbers.



(Tracks shown on page 154)

The Mule Deer (*Odocoileus hemionus*)

The Mule Deer of the Rocky Mountain States is similar in general to the smaller black-tail of the Pacific coast with which it is sometimes confused, under the same name, owing no doubt to the fact that it has a black-tipped tail. The "black-tail" is more of a forest deer. The most reliable recognition mark of the mule deer is the tail which is narrow and scraggily haired and white all around, becoming black only near the tip. Unlike the black-tail the mule deer favors the more arid interior, and its range embraces the vast territory from Alberta and western Iowa south over the tableland to central Mexico.



1. White Tail.
2. Mule Deer.
3. Black Tail.

On the west its range meets that of the black-tail along the high mountains near the Pacific, reaching to the coast in southern California, and north-western Mexico. The buck is a fine showy animal, proud-spirited, carrying his evenly-forked antlers high. When alarmed this deer has a peculiar habit of bounding into the air, the fore and hind feet leaving the ground at the same instant in a series of astonishing leaps that at first seem to lack definite direction, and expose it to danger.

(Tracks similar to those on page 154)

The Prong-Horn or American Antelope

(Antilocapra americana)

Unlike the antelope of the Old World, which are not close relatives, the American species has pronged horns, the outer covering of which is shed in the fall, leaving sharp, nearly straight, bony spikes. Owing to its bright coloration and exceeding grace of movement it may properly be regarded as the most beautiful of the larger American game animals. While in a short dash a fast horse may overtake an antelope, the horse is usually soon left far behind as the antelope settles into its stride at full speed over the plain. At the time of the discovery of the country the antelope numbered millions in the aggregate, like the buffalo, on the vast open plains lying between the mountain ranges from Alberta, Canada, south to near the valley of Mexico, and from Iowa west to California.



Owing to the settlement of the country, over-hunting, and inroads by predatory animals, the prong-horn has disappeared from most of its former range. According to recent careful estimates about 28,000 remain in the United States, of which about one-fourth are in Wyoming. They still occur, however, in 16 western states and in places where accorded special protection are increasing. *(Examine similar tracks on page 154)*

THE BISON, SHEEP AND GOATS

The American Buffalo, or Bison (*Bison bison*)



Buffaloes, in herds estimated at millions in the aggregate, formerly inhabited the vast area reaching from Pennsylvania west to the eastern base of the Sierra Nevada, and from the vicinity of Great Slave Lake, Canada, south at least to near the

Mexican border. The buffalo was the most important game animal to various western tribes of Indians which were thus afforded not only abundant food, but clothing, bedding, and tepee covers made of the skins. With the construction of the first transcontinental railroads their slaughter for the skins brought about such a rapid reduction in numbers that by 1895 it was estimated that only about 800 remained. Lovers of our wild life became alarmed by the threatened extermination of this former monarch of the plains and organized the American Bison Society to save it. There are well over 1,500 buffaloes in various Federal reservations including Yellowstone National Park, aside from which are several notable private herds. To these may be added about 8,000 in the Canadian Government herd at Wainwright, Alberta, and another Canadian herd of undetermined size including the wild woodland buffalo on Peace River. The permanence of this splendid American animal, once threatened with extinction is thus assured, in fact buffaloes are so numerous that it is necessary to remove some of the surplus from the reservations in the interest of the herds as a whole.

(Tracks roughly similar to those on page 154, only larger)

The Mountain Sheep (*Ovis canadensis*)

The wild mountain sheep, sometimes known as the big-horn, inhabits the Rocky Mountains and other mountains of the west from British Columbia to northern Mexico. Some range in summer up above the limit of tree growth on the higher mountains, others remain throughout the year in low, rugged, desert ranges of the Southwest where cactuses, yuccas, and century plants are abundant. But whether they live at high or low elevations, the sureness of foot exhibited and the amazing speed attained in headlong dashes up, down, or along slopes and over crags so precipitous that a slip would be fatal, leave a lasting impression on the climber who has startled a wild band. Owing to their keenness of sight, scent, and hearing, mountain sheep are difficult to approach.



(Tracks comparable to those on page 154)

The Rocky Mountain Goat (*Oreamnos americanus*)

The Rocky Mountain goat is the sole representative of its family in America. The humped shoulders, small horns and long shaggy white coat give it an ungainly appearance; and it moves comparatively slowly, lacking the dash and graceful abandon of the mountain sheep. Its home is along the cliffs and rugged upper slopes of timberline mountains from Alaska to Montana where it appears to be comparatively unmindful of winter storms. Under protection it should permanently remain an object of interest and delight to Alpine visitors.



(Tracks comparable to those on page 154)

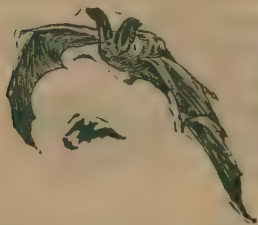
SOME OF THE COMMONEST UNAPPRECIATED ANIMALS SCOUTS SHOULD KNOW

By E. LAURENCE PALMER (Cornell University)
(Drawings by Leonard Rossell)

Size and fierceness are not the only measuring sticks we should use in determining what animals Scouts should know. In fact, some of the animals which influence man most have neither great size nor great courage. Some of these smaller common animals are very useful in the services they render us, and some are highly destructive. In order that Scouts should act intelligently towards such animals as bats, moles, shrews, mice and rats this section is included in this Handbook.

Among the most destructive creatures on earth are the insects. To be sure there are fortunately some useful insects. But in spite of this, there are injurious insects which fly high in the air; there are others that hide under loose leaves and rubbish, and there are still others that burrow deep in the ground. To assist in keeping these insects in control, Nature has enlisted the services of bats, shrews and moles. The bats, of course, capture the insects in flight; the shrews, those under the loose rubbish; and the moles, those underground or even under water.

The Bats. Bats are not birds, but have hair as we do and are classed as mammals. They are most unique mammals, however, because of their ability to fly. The



fingers on the fore limbs are connected by membranes or webs, which make flying possible. The food of *our* bats is exclusively insects, and this should speak highly in favor of bats. In some parts of the country, bats are given shelter so that they may function in the capacity of keeping down

the number of injurious insects. The more bats, the

fewer insects. It is doubtful whether any birds possess the marvelous control and precision of movement of some bats on the wing in turning or following zigzag in pursuit of insects.

There are, of course, many kinds of bats in the United States. Some of these fly south with the birds in winter, and some hibernate during the cold seasons like the chipmunks. Each species of bat seems to be active at a more or less definite time of day. Some, like the little brown bats, are active at early dusk, and others, like the hoary bats, are active during the darker parts of the night. Bats apparently have wonderful ability in detecting their food. They undoubtedly have exceptional senses of sight, hearing and feeling, and possibly of smell. To aid in these senses, some bats have most unique noses, and others, most unique ears. Bats capture their food while in flight. They may use the web between their tail and hind legs to assist in holding it for a brief time. In early summer, bats may not infrequently be found flying about with the young clinging to the mother's breast. There are generally two young, though occasionally there may be but one, or sometimes three. Bats of the species found in the United States unquestionably deserve more protection and encouragement than they usually receive.

The Shrews. Shrews enjoy the unique distinction of being the smallest living mammals. There are some shrews that are larger than certain other animals, but the smallest living mammal is a shrew. Shrews are probably most frequently observed when the cat brings one home in the hope that there may be some reward for the capture of a mouse. The cat does not eat shrews unless hungry because of the fact that they have a



strong odor and probably an unpleasant taste. The shrew is probably as useful to society as the cat if not more so, since most shrews live almost exclusively upon insects and other very small forms of animal life. Unlike moles, shrews have normally developed feet. Their eyes, however, are not conspicuous but their noses are. They do not burrow, but work along under the loose rubbish and not infrequently on logs and other material above ground. They are nervous, morose little creatures, ready for a fight with anything no matter what its size may be. They are active the year round and may be active either in broad daylight or the darkest night. Shrews of one species or another are found in most parts of the United States. They breed apparently at any time of year and may have five or more young. They are difficult to keep in captivity because of the demands they make upon the food supply and apparently because of their highly nervous temperament. Shrews can and do kill and eat mice, and if necessary will kill their own kind. Their usefulness is generally as unappreciated as is their abundance. Almost any Scout who has access to open country knows the type of country in which they live, though he may not know that shrews live there.

The Moles. Moles, like the shrews and bats, live almost exclusively upon insects and other small forms of animal life. Unfortunately their burrows are used



by mice that feed upon garden vegetables and bring destruction upon the heads of the moles. Moles

live most of their lives underground and to this end have developed unique digging forefeet and generally unique

noses which are of value in digging and in detecting their food. The star-nosed mole that lives in wet places has an elaborately developed nose as its name implies. It swims readily and frequently. Moles are sightless creatures and may be like the bats, either of a social nature or decidedly unsocial, depending upon the species. They may breed once or twice a year and have from three to six young at a time. The young at birth are hairless and helpless. The pelts of the common moles have been used for various purposes, and the animals have been killed quite generally because of the fact that to man's eye they disfigure lawns and gardens. If they could be judged by the food they eat they would undoubtedly live much longer than they do, since from that standpoint they are unquestionably very useful.

The Mice and Rats. There are about one hundred and fifty kinds of rats and mice living in the United States. In a broad sense they probably serve as the "bread and butter" of the larger animal-eaters. Foxes, wolves, bob-cats and the like all will eat mice when nothing better offers itself. With the reduction in number of these larger animal-eaters, mice have multiplied to such an extent that in many places they threaten the prosperity of the farmer's grain and of his orchard. For this reason there is every reason why Scouts should know about the ways of mice and do what can be done to keep their numbers within reason. Many snakes, most hawks and owls, skunks, weasels, and other common, frequently unappreciated animal-eaters contribute a genuine share of service in this connection, and should be given credit for this service.

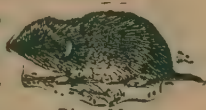


Brown Rat

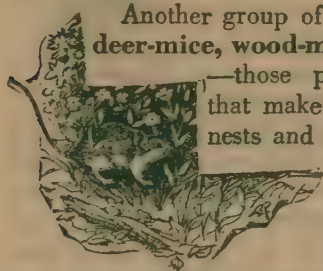
(For tracks see page 150)

Four general groups of rats and mice may be cited.

The old world rats and mice include the house mouse and common rat. The common rat is unquestionably the worst animal pest with which man has to contend. The property damage in one year by rats in England and Ireland outside the cities has been estimated at \$73,000,000. House mice are also destructive to property. A pair of house mice and the offspring they produce in a year could in that year produce about 1,000 mice. These figures merely give a slight idea of the possibilities of destruction that lie in these common animals. It is infinitely greater and affects a greater number of people than the property damage of wolves, cougars and bears combined, though the manner of destruction is apparently much less dramatic.



Pine Mouse



White Foot Mouse

Another group of rats and mice includes the deer-mice, wood-mice, or white-footed mice—those pretty, large-eyed creatures that make homes in abandoned birds' nests and are probably of some value as insect destroyers. The snows in winter are not infrequently generously peppered with their tracks which show a conspicuous

tail mark. In the West are grasshopper-mice, which feed on grasshoppers. The harvest-mice are expert climbers and build nests in the branches of bushes, while the tree-mice live in tall forest trees.



Grasshopper Mouse

Wood-rats and mountain-rats, though found in the East, are better known in the western part of



the country, and belong to another group. They have larger eyes and ears and longer tails than the common rat and live frequently in caves and crannies in which they construct elaborate nests of sticks and grasses. The cotton-rat ranges in the South and one of the Central American rice-rats ranges as

far north as New Jersey. **Meadow-mice and field-mice** belong to still another group. They are generally short-tailed, short-eared little fellows, rather uniformly brown or grey. They destroy not less than \$3,000,000 worth of farm products in a year, according to the U. S. Biological Survey. A single pair and their offspring could, in five years, produce about 1,000,000 mice, and this is a very conservative estimate. Their greatest destruction lies in the girdling and killing of fruit trees and in the destruction of forage grasses and grain. A thousand mice in a field would require about twelve tons of grass or other vegetation to maintain them for a year. The run-ways of meadow mice may be found in almost any meadow-land in the United



Field Mouse

States, and if followed will undoubtedly lead to a mouse nest which frequently lends itself to an interesting observation on the "habits" of at least one species of "wild animal." There are reasons which might make it as necessary for Scouts to know about meadow-mice specifically among the animals as to know about poison ivy specifically among the plants.

There are numerous other interesting small rodents such as jumping mice, the destructive and peppery pocket gophers, the prairie dogs, the mountain beavers and the pikas.

Requirement No. 11 (2)

“Find the North Star, and name and describe at least three constellations of Stars.”

This requirement must be met out-of-doors on clear nights

STARS

North Star identified

Date.....

Constellations

	Name	Location	Shape	When observed
1				
2				
3				

Test passed.....date

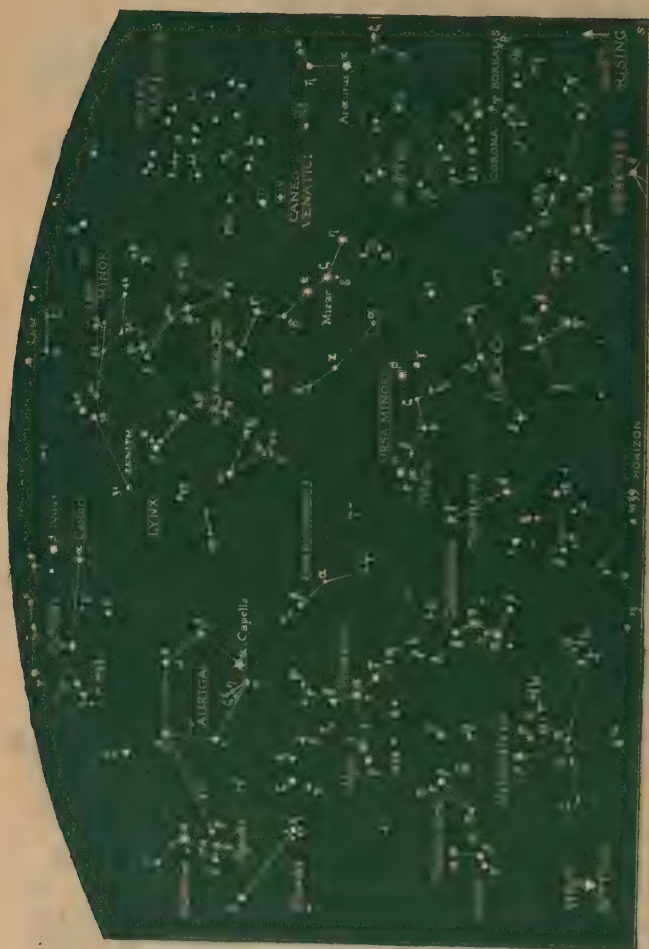
Signed.....Examiner

To find the “North Star,” the first time you must know where North is—there you can see the “Big Dipper” whose two end stars in the “bowl” point to the North Star. Once identified, thereafter it will tell you which way is north.

As Garret P. Serviss wrote:

“Every boy ought to know the North Star, which for ages has been a sign-post in the sky, guiding wanderers by both sea and land. You can never be lost if you know that star, for it holds its place unchanging. It is within but little more than a single degree (about twice the diameter of the full moon), from the true North Pole of the heavens, around which it describes in 24 hours a circle so small that the motion is unnoticed by the





★ ● ● ● ●
MAGNITUDE } 1 2 3 4 5
OF STARS

LOOKING NORTH, APRIL 1, 8 P.M.
OR, MAR. 15, 9 P.M., MAR. 1, 10 P.M., FEB. 15, 11 P.M.

From "Trees, Stars and Birds"—Mosley, World Book Co.

naked eye. It is a surer guide to the north than the compass needle, because the latter points many degrees west of north in the eastern United States, and many degrees east of north in the western states. Only along a crooked line running from South



Carolina to Lake Superior does the compass needle point true north. The amount of declination at any particular place may be ascertained from the magnetic charts published by the Geodetic Survey. After you have located the "Big Dipper," on the

other side of the North Star, about as far away from that star as the Great Dipper is, you will see the constellation Cassiopeia, which you can recognize very easily on account of the W-shaped figure formed by its stars. Cassiopeia and the Great Dipper swing around the pole every twenty-four hours, always keeping opposite to each other. They also gradually advance around it in the same direction with a slower motion, due to the earth's revolution around the sun, but this second motion is not noticed in the course of a single night's observation."



The North Star is almost directly above the axis of the earth, so if you stood at the North Pole with Peary, or Byrd, the "Pole Star" would be directly above your head in the Zenith, 90° above the horizon. At the Equator the North Star would be invisible, lying exactly on the horizon. Actually its height above the horizon is the same as your latitude from the Equator. At Miami, Florida, it is only 26° above the horizon, at Seattle it is nearly 48° above, at Chicago it is 42° as at Boston.

In very ancient times, the stars were worshipped. The sky was the first clock and as the motions of the earth changed the face of the sky—time and seasons were recognized. Chinese astronomic records antedate 2300 B. C. They assigned $365\frac{1}{4}$ degrees to the circle, showing the influence of the solar year. The Egyptians laid out their pyramids and the beginning of surveying with their knowledge of the North and other stars. Once they had fixed the North and South line they used rope knotted with lengths 3, 4 and 5 to establish their right angles. Along the Euphrates, practical star observations were of record before 3800 B. C.

When you step outside on a clear night it is difficult to realize that every point of light you see in the heavens is a SUN, most of them bigger than our own and so far away that a new unit of distance has to be used—namely

the "light year." Light travels 186,000 miles per second and that figure multiplied by the number of seconds in a year, gives the number of miles in a "light year." (Multiply it out and see if you can read it).

The nearest fixed star is 200,000 times as far from the sun as is the earth (which is 93,000,000 miles).

About thousands of these stars or suns, there circle smaller dark bodies, similar to our earth and the other planets circling our own sun.

Many bright spots in the sky, looking like a single sun, are in reality great clusters containing thousands of suns.

In the great MILKY WAY, suns and nebulae (great luminous clouds inconceivably far across) are thickly clustered together and with the North Star group will serve not as a land-mark but as a sky-mark to every Scout.

These stars shine by their own light like our sun. The eight planets, like our own moon, shine by reflected light—reflected from our sun. Any almanac will tell you which of the planets are visible at any time.

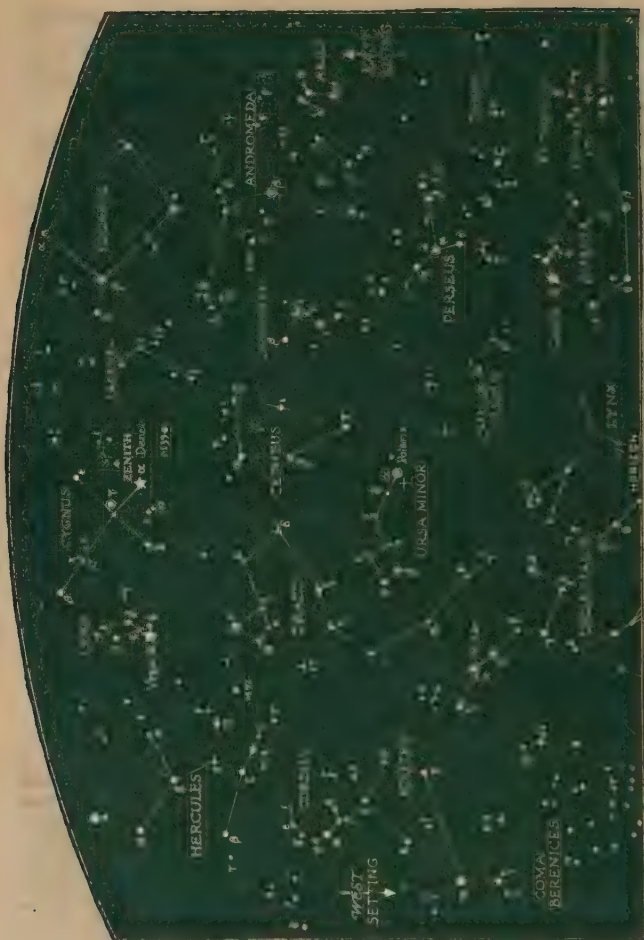
THE FOLLOWING TABLE GIVES THE VITAL FACTS:

	Diameter miles	Distance from sun millions of miles	Orbital velocity per. sec. miles	Relative size	Relative distance
Sun	865,350		(13.5*)	If sun were 2 ft. globe	
Mercury	2,765	36.	29.0	Mustard seed	164 ft. distant
Venus	7,826	67.2	21.9	Pea	284 ft. distant
Earth	7,913	92.9	18.5	Pea	430 ft. distant
Mars	4,332	141.5	15.0	Pin head	654 ft. distant
Jupiter	87,880	483.3	8.1	Orange	1/2 mi. distant
Saturn	73,125	886.	6.0	Lemon	4/5 mi. distant
Uranus	34,900	1781.9	4.2	Cherry	1 1/2 mi. distant
Neptune	32,900	2791.6	3.4	Plum	2 1/2 mi. distant

* Taking all other planets with it

Within the orbits of Mars and Jupiter is a space where there are the asteroids, small bodies which act as a broken up or exploded planet might act. They circle the sun in the same way.

Our neighbor planet (and twin) Venus has an atmosphere. Mercury has none, as the gravitational pull of the sun has stolen it. Mercury's heat from the sun is 6.8 times as much, while Neptune, on the other extreme, is only 1-1000th that of our own.



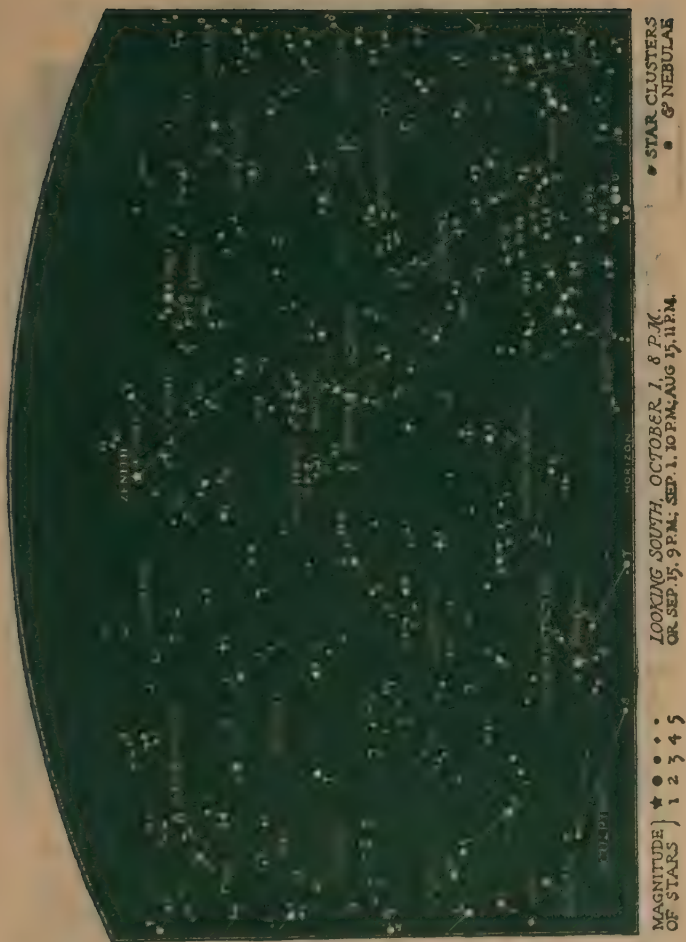
● STAR CLUSTERS
● NEBULAE

LOOKING NORTH, OCTOBER 1, 8 P.M.
OR SEPT 15, 9 P.M.; SEPT 1, 10 P.M.; AUG 15, 11 P.M.

MAGNITUDE | ★ ● ● ● ●
OF STARS | 1 2 3 4 5

From "Trees, Stars and Birds"—Moseley, World Book Co.

Comets are swarms of minute particles of matter which have great orbits. They come falling in toward the sun at great accelerating speeds and then fly off, slow down and start back. The heads are often millions of miles across—but they do not have much mass. Indeed the material in the tails is so thin that the repulsion of light forces the tail away from the comet. Indeed the comet's tail always points away



from the sun—is behind it as it comes toward the sun and goes ahead as it retreats.

These must not be confused with meteors or so-called “falling stars,” which are not stars but are small particles of matter passing through space in obedience to gravitation laws and which burn up when they strike our atmosphere (which extends appreciably some 50 miles).

Some of these travel in orbits and hit our atmosphere at intervals—the November Leonids do this once in 33 years.



Requirement No. 12

“Furnish satisfactory evidence that he has put into practice in his daily life, the principles of the Scout Oath and Law.”

SELF MEASUREMENT BLANK

Date (.....days since becoming 2nd Class)

My Height.....ft.inches Growth.....

My Weight.....lbs. Growth.....

My Chest Expanded.....inches Growth.....

My school grades (averaged) Improvement.....

My church attendance.....% Improvement.....

“Good Turn” Days in the past

.....days since becoming

Second class Improvement.....

As to the Scout Law, have I done better in living it?

Am I a better citizen than before I became a Second Class Scout?

On scale of 100, what all around rating would I be justified in giving myself?

“On my honor, I will do my best.....”



The ancient Knight, with his "Good Turns" to those oppressed or in need, was the forerunner of modern government. So the "Good Turn" today continues to put Kindliness and Brotherliness into our democracy.

BADGES AND INSIGNIA

(Other than those appearing on Page 47)



National Scout
Commissioner
Silver Wreath,
Silver Eagle,
Red, White and
Blue Shield;
Scout Insignia,
Gold, Silver
Powder Horn
Assistant Scout
Executive
Silver Badge,
Silver Eagle,
Red Background,
Gold Wreath

District Scout
Commissioner
Silver Badge,
Silver Eagle
Blue Back-
ground,
Gold Wreath

Assistant
Deputy Scout
Commissioner
Silver Badge,
Gold Wreath,
Blue Background



Assistant
Patrol Leader



Sea Scout

Regional Field
Scout Executive
Gold Insignia,
Gold Wreath,
Red, White and
Blue Background
District No.
Beneath

Regional Field
Deputy
Scout Executive
Bronze,
Red, White and
Blue Background
District No.

Assistant Field
Scout Executive
Gold Badge,
Gold Wreath



Service Star
One Year
Gilt on Green
Five Years
Silver Color
on Red



Patrol Leader



Camp Director's
Badge
Silver or Gold
Horns



Life Guard



Executive
Board
Silver Insignia,
Purple Enamel,
Gold
Arrowhead

Special National
Field Scout
Commissioner
Silver Insignia,
Gold Wreath,
Dark Blue
Background



Harmon Pin



Musician's
Badge



Eagle
Palms



Long Cruise
Badge
Additional
stripes for
second and third
cruises



Chief Scout
Executive
Silver Insignia,
Silver Wreath,
Red, White and
Blue Background

Deputy Chief
Scout Executive
Silver Insignia,
Gold Wreath,
Red, White and
Blue Background



International
Commissioner's
Badge



Cabin Boy

Part V

Merit Badge Progress

For First Class Scouts

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(For First Class Scouts.)	



EQUIPMENT

By EDGAR A. GUEST

FIGURE it out for yourself, my lad,
You've all that the greatest of men have had,
Two arms, two hands, two legs, two eyes,
And a brain to use if you would be wise.
With this equipment they all began,
So start for the top and say, "I can."

LOOK them over, the wise and great,
They take their food from a common plate
And similar knives and forks they use,
With similar laces they tie their shoes,
The world considers them brave and smart.
But you've all they had when they made their start.

YOU can triumph and come to skill,
You can be great if you only will,
You're well equipped for what fight you choose,
You have legs and arms and a brain to use,
And the man who has risen great deeds to do
Began his life with no more than you.

YOU are the handicap you must face,
You are the one who must choose your place,
You must say where you want to go.
How much you will study the truth to know,
God has equipped you for life, but He
Lets you decide what you want to be.

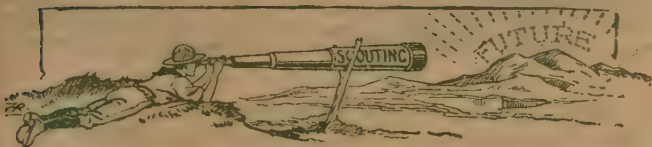
COURAGE must come from the soul within,
The man must furnish the will to win,
So figure it out for yourself, my lad,
You were born with all that the great have had,
With your equipment they all began.
Get hold of yourself, and say: "I can."

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CHAPTER I

Finding One's Life Work



A Scout looks ahead! He "prepares" for things before they happen. He therefore meets them easily.

As he "looks ahead," EVERY SCOUT must face the problem of **his life work.**



Will he become a farmer or a clergyman, a forester or a clerk, an engineer or a writer, an artist or **WHAT?**

The apple in the picture tells the story. **Some climb up** — choose, prepare, qualify. **Some wait**—hope, change, take what comes.

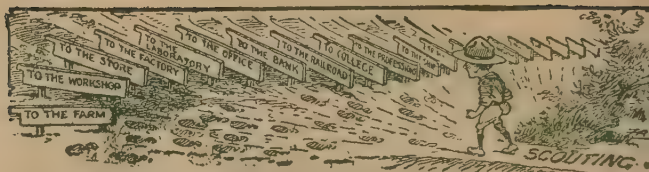
"The heights by great men reached and kept, were not attained by sudden flight; but they, while their companions slept, were toiling upward in the night."—Longfellow.

The Scout can do three things:

1. Ask information about various jobs.
2. Try the Merit-Badge opportunity.
3. "Talk it over" with older people.

Also the Scout-who-looks-ahead will form friendships with successful men from vocations which interest him, and begin, while still at school, to learn more of how he can **SERVE** the world through the job that is to be his.

And that's what all honest jobs are—"doing things for other people."



The following lists of Merit Badges show those that are of special value in the life work mentioned.

ARTIST

Art
Architecture
Cement Work
Indian Lore
Landscape Gardening
Leathercraft
Leather Work
Metal Work
Music
Painting
Pottery
Photography
Reading
Sculpture
Woodcarving
Wood Turning
Wood Work

CRAFTSMAN

Art
Basketry
Bookbinding
Carpentry
Cement Work
Foundry Practice
Handicraft
Indian Lore
Leathercraft
Machinery
Masonry
Metal Work
Painting
Photography
Pioneering
Plumbing
Pottery
Printing
Sculpture
Taxidermy
Woodcarving
Wood Turning
Wood Work

DOCTOR

Chemistry
Dairying
First Aid

First Aid to Animals
Life Saving
Personal Health
Physical Development
Public Health
Reading
Safety
Weather

EDUCATOR

Agriculture
Art
Astronomy
Athletics
Bird Study
Botany
Chemistry
Civics
Conservation
Firemanship
First Aid
Handicraft
Indian Lore
Music
Photography
Public Health
Reading
Safety
Scholarship
Stamp Collecting

ENGINEER

Architecture
Automobiling
Aviation
Blacksmithing
Carpentry
Chemistry
Electricity
Foundry Practice
Machinery
Masonry
Mining
Pioneering
Plumbing
Radio
Safety
Surveying

FARMER

Agriculture
Animal Industry
Automobiling
Beef Production
Bee Keeping
Blacksmithing
Carpentry
Cement Work
Citrus Fruit Culture
Corn Farming
Cotton Farming
Dairying
Farm Home
Farm Layout
Farm Mechanics
Farm Records
First Aid to Animals
Forestry
Fruit Culture
Gardening
Handicraft
Hog & Pork Production
Insect Life
Nut Culture
Poultry Keeping
Sheep Farming
Soil Management
Weather
Zoology

FORESTER

Agriculture
Angling
Astronomy
Bird Study
Botany
Camping
Conservation
Cooking
First Aid
Forestry
Gardening
Hiking
Insect Life
Life Saving
Pathfinding

Pioneering
Reptile Study
Safety
Signaling
Surveying
Swimming
Weather
Zoology

LAWYER

Business
Civics
Conservation
Journalism
Public Health
Reading
Safety

MERCHANT

Art
Business
Interpreting
Journalism
Chemistry
Civics
Indian Lore
Printing

Reading
Salesmanship
Stamp Collecting
Textiles

NATURALIST

Agriculture
Angling
Astronomy
Bee Keeping
Bird Study
Botany
First Aid to Animals
Forestry
Gardening
Indian Lore
Insect Life
Photography
Reptile Study
Stalking
Taxidermy
Zoology

OUTDOORSMAN

Angling
Archery

Camping
Canoeing
Cooking
Conservation
First Aid
Forestry
Hiking
Pathfinding
Pioneering
Stalking
Swimming
Weather
Zoology

SEAMAN

Angling
First Aid
Life Saving
Radio
Reading
Seamanship
Signaling
Stamp Collecting
Swimming
Weather

THE COMER

BY EDMUND LEAMY




He may be now an office boy,
A messenger, or clerk.
The smallest paid in the em-
ploy
Of him who gives him work;
But if he toils with willing-
ness
And wears a cheery grin,
He's on the roadway to suc-
cess.
That chap is bound to win!

Not long he'll be an office
boy;
Employers quickly see
Who works because the
task is joy
And not just for his fee;
And others too will help
him climb
To far heights of success—
Wealth will be his, and
fame, in time.
Who works with willing-
ness



Merit Badges for Second Class Scouts

The Second Class Scout may qualify for any five of the following forty Merit Badge subjects.

Agriculture
Animal Industry
Art
Basketry
Beef Production
Bee Keeping
Blacksmithing
Bookbinding
Bugling
Carpentry
Cement
Corn Farming
Cycling
Dairying

Farm Home and its
Planning
Farm Layout and
Building Arrange-
ment
Firemanship
First Aid to Animals
Fruit Culture
Gardening
Handicraft
Hog and Pork
Production
Horsemanship
Leathercraft
Leather Work

Masonry
Metal Work
Music
Painting
Pathfinding
Personal Health
Photography
Pottery
Poultry Keeping
Printing
Safety
Sheep Farming
Soil Management
Weather
Wood Carving

First Class Merit Badge Progress

To the **First Class Scout** there comes the privilege of delving into new subjects that interest him. There are many subjects to know and many crafts to master. A faucet in the house gets out of order, the Scout would like to know how to fix it—the Plumbing Merit Badge experience shows him **HOW**. He may be interested in aviation—that field of action is opened to him with suitable recognition.

Many Merit Badges are of particular interest to farm boys; others especially to city boys. There are 96 different subjects. A glance at the list on the preceding pages shows the tremendous range. An outstanding expert in each field has been called upon to prepare the requirements and outline the program which opens to the Scout doors to knowledge and power.

The important thing, however, is not how **MANY** Badges a Scout acquires, but how much **real power** he has developed.

The Badge Requirements are really but introductions to each subject. The genuine Scout continues to “go on” more deeply into each subject he undertakes. He is also able to **USE** his knowledge. Quality and thoroughness rather than a mere show of number is the true Scout Ideal.

CHAPTER II

Star—Life—Eagle Awards

“A First Class Scout who meets the requirements herein stated for Star, Life or Eagle Scout Rank, or for the award of Eagle Palms, may receive such award only when the Local Court of Honor or Examining Committee secures—in such manner as it may determine wise, from those who may be in a position to know from personal knowledge, not from the Scout himself, but from the Parents, School Teacher, Employer, Pastor, Sunday School Teacher, Scoutmaster, Member of his Troop Committee or others—definite, concrete, satisfactory evidence that the Scout has:

“FIRST, actually put into practice in his daily life the ideals and principles of the Scout Oath and Law, the Motto ‘Be Prepared,’ and the ‘Daily Good Turn.’

“SECOND, maintained an active service relationship to Scouting.

“THIRD, made an effort to develop and demonstrate leadership ability.”

The Star, Life and Eagle Ranks are respectively the highest steps in Scout advancement. Those who attain these honors, of necessity, should be real Scouts, representative Scouts—Scouts on the inside as well as on the outside.

Star



5 Subjects

Life



10 Subjects

Eagle



21 Subjects

The National Council, therefore, has insisted that the Court of Honor (or the Examining Committee) before conferring these awards shall positively KNOW

1) That the Scout is living up to his Oath and Law and Motto and "Good Turn." So important is this that they are instructed to secure specific evidence from the Scout's associates.

2) The Scout to be honored with these high ranks in Scouting must, of course, continue **ACTIVELY** a part of Scouting in his Troop relations.

3) The challenging need of America is leadership—people who have ability and reliability enough to carry responsibility in business, in government, in church, everywhere. Leadership can only be learned by leading. Scouting offers the opportunity to get this experience. Use it by making an earnest, though modest, effort to **SERVE** through giving leadership to such activities and work and "Good Turns" as your own leaders deem wise. To **HELP** rather than merely to **LEAD**, is the ideal.

How to Become a Star Scout



"For the Star Scout Award:

"1. His record of satisfactory service, as a First Class Scout, shall have been for a period of at least three months; and

"2. He shall have qualified for any five Merit Badges."

1) This service, during three months as a First Class Scout, has afforded the Scout the chance to live the Scout Ideals, as indicated on page 391.

These things are the heart of Scouting because they are the very heart of good citizenship.

2) In selecting the first of the five Merit Badge subjects, examine the list on page 388-389, mark those that interest you, find the requirements on pages 400 to 451 and start forthwith to master the first one.

Consult the local city library, a local leader in the field in question, your Scoutmaster, Scout Executive, your local Court of Honor—all stand ready to help you get knowledge. The Scout Movement has a series of Merit Badge pamphlets available.

My Star Scout Score Board

Star Scout Requirements



To become a Star Scout

Name _____

Score Board

FOR ME TO BE AND DO

- I Maintain active service — (at least 3 months)
Living the Oath, The Law, The Motto, The Good Turn,
- II Trying earnestly to develop my leadership ability
- III Qualify for 5 Merit Badges

1 _____ Passed on _____
2 _____ Passed on _____
3 _____ Passed on _____
4 _____ Passed on _____
5 _____ Passed on _____

Badge conferred on _____

Signed _____
Scoutmaster

How to Become a Life Scout



"For the Life Scout Award:

"1. His record of satisfactory service as a First Class Scout, shall have been for a period of at least six months; and

"2. He shall have qualified for ten Merit Badges, which shall include (1) First Aid, (2) Physical Development or Athletics, (3) Personal Health, (4) Public Health, (5) Life Saving or Pioneering."

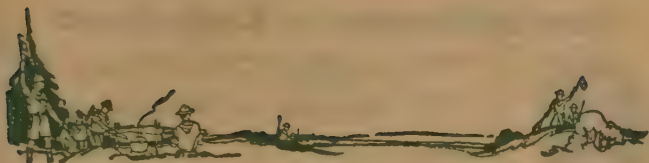
To become a Life Scout, the First Class Scout shall

1) Serve in his troop, and live the Scout principles day by day for not less than **six months**. (See page 391).

Emerson once said, "What you are shouts so loud, I cannot hear what you say." What the Scout **IS** determines his progress in whatever line of business he may seek success—and Scout Ideals mean progress in business.

2) Five more Merit Badges are needed to advance from Star to Life Scout rank—but the total ten must include the five listed above. Go much more deeply into them than the mere requirements.





My Life Scout Score Board

Life Scout Requirements  To become a Life Scout

----- Name ----- **Score Board**
FOR ME TO BE AND DO

- I Maintain active service (at least 6 months)
 Living the Oath, The Law, The Motto, The Good Turn.
- II Trying earnestly to develop my leadership ability
- III Qualify for 10 Merit Badges

- | | |
|--|--|
| 1 First Aid | Passed on -----
<small>Date</small> |
| 2 Physical Development
or Athletics | Passed on ----- |
| 3 Personal Health | Passed on ----- |
| 4 Public Health | Passed on ----- |
| 5 Life Saving or
Pioneering | Passed on ----- |
| 6 ----- | Passed on ----- |
| 7 ----- | Passed on ----- |
| 8 ----- | Passed on ----- |
| 9 ----- | Passed on ----- |
| 10 ----- | Passed on ----- |

Badge Conferred on -----

Signed ----- Scoutmaster

How to Become an Eagle Scout



"For the Eagle Scout Award:

"1. His record of satisfactory service, as a First Class Scout, shall have been for a period of at least one full year.

"2. He shall have qualified for twenty-one Merit Badges, which shall include (1) First Aid, (2) Life Saving, (3) Personal Health, (4) Public Health, (5) Cooking, (6) Camping, (7) Civics, (8) Bird Study, (9) Path-finding, (10) Pioneering, (11) Athletics or Physical Development."

(I) A record of a year's satisfactory Scout service involving the practice of the Oath and Law, the Motto and the "Daily Good Turn."

This does not mean that the Scout must wait a year before starting for Eagle rank, but it does mean that he shall have been trained and shall have served for one year before the Eagle Badge can be awarded to him.

The highest rank in Scout progress is the Eagle.

Almost invariably Eagle Scouts help the Scoutmaster conduct the Troop, as Patrol Leaders, Senior Patrol Leaders, and Junior and Assistant Scoutmasters.

The Eagle candidate is urged to try to HELP in similar fashion in church and home and school activities.

A real Eagle Scout is valued highly. In the recent war an Eagle Scout had been denied admittance to the aviation service for lack of college education. When he told them he was an Eagle Scout he was accepted and on his papers they counted it the value equivalent of two college years. Of course, colleges do not so recognize it, but it shows what the government thought of Scout training!

My Eagle Scout Score Board

Eagle Scout Requirements To become an Eagle Scout



Score Board

Name _____

FOR ME TO BE AND DO

- I** A First Class Scout (service 1 year) signed _____ Scoutmaster
Practicing the Oath, the Law, the Motto, the Good Turn
- II** Earnestly trying to develop leadership ability
- III** Qualify for 21 Merit Badges

- | | |
|---|-----------------|
| 1 First Aid | Passed on _____ |
| 2 Swimming | Passed on _____ |
| 3 Life Saving | Passed on _____ |
| 4 Personal Health | Passed on _____ |
| 5 Public Health | Passed on _____ |
| 6 Cooking | Passed on _____ |
| 7 Camping | Passed on _____ |
| 8 Civics | Passed on _____ |
| 9 Bird Study | Passed on _____ |
| 10 Pathfinding | Passed on _____ |
| 11 Pioneering | Passed on _____ |
| 12 Athletics or
Physical Development | Passed on _____ |
| 13 _____ | Passed on _____ |
| 14 _____ | Passed on _____ |
| 15 _____ | Passed on _____ |
| 16 _____ | Passed on _____ |
| 17 _____ | Passed on _____ |
| 18 _____ | Passed on _____ |
| 19 _____ | Passed on _____ |
| 20 _____ | Passed on _____ |
| 21 _____ | Passed on _____ |

Badge Conferred on _____
Signed _____ Scoutmaster

Eagle Palm Awards

"The Eagle Scout who meets the requirements for five Merit Badges, in addition to the twenty-one required for Eagle Scout rank, may be awarded a Bronze Palm; for ten, a Gold Palm; for fifteen, a Silver Palm; for twenty or more such combinations, of Bronze, Gold or Silver Palms as he may elect, to indicate the number for which awards have been made; provided, however, that no award of Palms may be made for more than five Merit Badges at any one time, and provided further that no award shall be made until after at least six months' satisfactory service as an Eagle Scout, as provided for in Clause 1 herein, and that subsequent awards may be made for intervals of not less than six months' service following the previous award."

Direct your course
through life by the SCOUT
COMPASS:

1. North is "DUTY TO GOD."
2. East is "DUTY TO COUNTRY."
3. South is "DUTY TO OTHERS."
4. West is "DUTY TO SELF."

—By Ray O. Wyland.



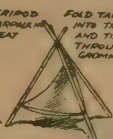
Some Uses of the Scout Staff

The following sketches show some of the many uses of the Scout Staff.

UPRIGHTS AND RIDGEPOLES
FOR SHELTERS, TENTS, ETC



TRIPOD
TARPAULIN
SEAT

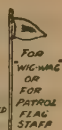


FOLD TARPAULIN
INTO TRIANGLE
AND TIE
THROUGH
GROMMETS



TRIPOD
CLOTHES
RACK

IN OPEN
SPACES
FOOD
SUPPLY
MAY BE
SUSPENDED
FROM
TRIPOD



FOR
"WIGWAG"
OR
FOR
PATROL
FLAG
STAFF

STAVES
USED IN
ROPE
BRIDGE
CONSTRUCTION



CLOVE KNOTS
FOR GUARD ROPES

DETAIL



AS AN
AID IN
JUMPING

STAVES WITH BLANKET
OR COATS MAKE STRETCHER



ALSO FOR SHOULDER CARRY
FOR BULKY PACKAGES



TEMPORARY
SPLINT

STAVES LASHED
TOGETHER
TO REACH DISTANT
OBJECTS,
TO HELP IN
RESCUES,
TO DELIVER
AN OBJECT
ACROSS AN
OPEN SPACE,
TO MAKE A
TEMPORARY
FLAG POLE.



MAINTAINING
ORDER AT
PARADES,
FIRES, ETC

ALSO USED ON
MOUNTAINS
TO KEEP SCOUTS IN
TOUCH WITH EACH
OTHER



FLY ON A
RAFT



PUNCHED



MARKED OFF
TO
MEASURE
DISTANCES



MARKED OFF
TO
ESTIMATE HEIGHTS

SCALED TO
ESTIMATE
WEIGHTS



PUSHING BACK
BUSHES, ETC.
AND
FEELING
WAY AT
NIGHT



FOR
CLIMBING



RACK TO
KEEP OBJECTS
OFF DAMP
GROUND



HANDLE
FOR
CAMP
BROOM

CHAPTER III.

The Merit Badges

As an introduction to this quick reference alphabetic list of requirements for the various badges—* it is well to be mindful of the vocational side of this wonderful Merit Badge program. *Many a Scout has caught a glimpse of his life's work as he learned to do the interesting things involved in winning Merit Badge honors!*

Agriculture

To obtain a Merit Badge for Agriculture, a Scout must:



1. Explain the nature of soil, its texture, its need of water, of air, and of plant and animal life; what the soil does for the plant and how the soil may be improved.
2. Make a seed tester and test the germination of three chosen varieties of seeds—100 seeds of each variety.
3. Identify and describe ten common weeds of the community and tell how best to eliminate them.
4. Identify six common insect pests, tell what plants they usually infest, and how best to control them.
5. Have a practical knowledge, for his locality, of plowing, cultivating, harrowing, disking, draining, and harvesting, and the purposes of each. Describe also the farm implements used in each case.
6. Tell how plants are propagated—by seeds, roots, cuttings, tubers, buds, and grafts. Explain where plants get their food and how they grow.
7. Read a weather map, know weather signals, and make local observations.
8. Name and distinguish ten common birds of his locality, and state their value to the farmer.

* For additional Merit Badge Requirements see pages 441a etc

Angling

To obtain a Merit Badge for Angling, a Scout must:

1. Catch and identify at least one specimen from each of three local species of fish by the usual angling methods (fly-casting, bait-casting, trolling, and bait-fishing.) At least one species must be taken by fly-casting or one by bait-casting.

2. Show proficiency and accuracy in fly-casting with the fly for distances of 30 or 40 feet, or in bait-casting for distances of 40, 60 and 70 feet.

3. Name and describe at least five standard fly patterns, or make a fly, spoon troll, plug or any other form of artificial bait lure and prove its worth by catching fish with it. Make a neat single-gut leader at least four feet long. Splice the broken joint of a rod or in some other way show proficiency in repairing broken tackle.

4. Give the open season for the game fishes in his vicinity, and explain how and why they are protected by the law.



Animal Industry

To obtain a Merit Badge for Animal Industry, a Scout must:

1. Name three breeds of draft horse and two breeds of light horse, and give the country or origin of each.

2. Name and give relative merits of four leading breeds of dairy cattle.

3. Name and explain the color markings and characteristics of five different breeds of beef animal.

4. Tell the requirements for the successful and profitable production of beef on a farm.

5. Describe how hogs are made profitable.

6. Name four leading breeds of sheep and describe them.

7. Demonstrate one first aid requirement in connection with farm animals.



Archery

To obtain a Merit Badge for Archery, a Scout must:

1. Make a bow, arrow and string with which he shall shoot an extreme flight of at least 150 yards.

2. With a bow and arrows make the following score on a regulation four foot target, shooting thirty arrows at each distance:

At 50 yards a score of at least 60

" 40 " " " " " 80

" 30 " " " " " 100



(The total number of points possible is 270 for any distance.)

3. Give the meaning of York, American and Team rounds; wand, clout, flight, and butt shooting; and roving. Mention three American woods that can be used satisfactorily in the making of a bow. (Perhaps the three best known are Yew, Hickory and Ironwood.)

4. Know something of the history of Archery and the principal archers of the past and the present, and their records.

Architecture

To obtain a Merit Badge for Architecture, a Scout must:

1. Present a satisfactory free-hand drawing.

2. Draw, without accurate measurements, the five orders of architecture, the drawings being of the character of sketches, but preserving the proportions.

3. Write an historical outline of the important periods of architectural development, giving the names of the important recognized architects identified with the development of each style.



4. Submit an original design for a two-story house, and tell what material is necessary for its construction, giving an outline of specifications, the design to consist of original working drawings at scale, drawn in ink on linen or paper suitable for making prints.

Art

To obtain a Merit Badge for Art, a Scout must:

1. Make a free-hand pencil sketch of an animal or bird showing in values the distribution of color.

2. Draw a cylindrical object and a rectangular object grouped together a little below the eye, and show light and shade.



3. Make a drawing of some example of historic ornament.

4. Make an original decorative arrangement in color, using any motif, and state for what use the design is intended.

5. State the essentials of the reproductive processes of etching, half-tone engraving, color printing, and lithography.

6. Paint a flower-spray or leaf-spray in color.

7. Present a camp scene either in water color or oil.

Astronomy

To obtain a Merit Badge for Astronomy, a Scout must:

1. Have a general knowledge of the nature and movements of the stars and planets.



2. Point out and name twelve principal constellations; find the north by means of other stars than the Pole-star, in case of that star's being obscured by clouds.

3. Have a general knowledge of the positions and movements of the earth, sun, and moon, and of tides, eclipses, meteors, comets, and planets.

4. Plot on at least two nights per month for six months the positions of all naked-eye planets visible between sundown and one hour thereafter. The plot of each planet shall contain at least three fixed stars, with their names or designations; colors of planets and stars are to be recorded as observed by him.

Athletics

To obtain a Merit Badge for Athletics, a Scout must:

1. Write an acceptable article of not less than five hundred words on how to train for an athletic event.



2. Give the rules for two track and two field events, and define an amateur.

3. Prepare plans for the holding of an athletic meet, specifying duties of each required official.

4. Produce evidence of having satisfactorily served as an official in an athletic meet, or in a major athletic sport, such as football, baseball, or basketball.

5. Qualify in one event, according to his weight, in each of the following groups:

	Under 95 Lbs.	Under 110 Lbs.	Under 125 Lbs.	Under 140 Lbs.	Over 140 Lbs.
1. { Running broad jump	11 ft. 6 in.	12 ft.	13 ft.	14 ft.	15 ft.
{ Running high jump	3 ft. 6 in.	3 ft. 9 in.	4 ft.	4 ft. 3 in.	4 ft. 6 in.
{ Standing broad jump	6 ft. 3 in.	6 ft. 9 in.	7 ft. 3 in.	7 ft. 9 in.	8 ft. 3 in.
{ Standing high jump	3 ft.	3 ft. 2 in.	3 ft. 4 in.	3 ft. 6 in.	3 ft. 8 in.
2. { 50-yard dash	7 4-5 sec.	7 3-5 sec.	7 1-5 sec.	7 sec.	6 3-5 sec.
{ 100-yard dash			13 sec.	12 3-5 sec.	12 2-5 sec.
{ 6-potato race	28 sec.	27 sec.	26 sec.	25 sec.	24 sec.
3. { 20-yard swim	18 2-5 sec.	17 4-5 sec.	17 1-5 sec.	16 3-5 sec.	16 sec.
{ 40-yard swim	40 sec.	39 sec.	38 sec.	37 sec.	36 sec.

4.	Pull-up	5 times	6 times	8 times	10 times	12 times
	8-lb. shot-put	20 ft.	24 ft.	28 ft.	32 ft.	36 ft.
	Push up from floor. 9 times	10 times	12 times	14 times	16 times	
	Rope climb 18 ft... 17 sec.	15 sec.	13 sec.	11 sec.	10 sec.	
5.	1. Baseball throw for accuracy	48 ft.	51 ft.	54 ft.	57 ft.	60 ft.
	(3 strikes in 6 throws)					
	2. Baseball throw for distance	150 ft.	175 ft.	195 ft.	210 ft.	220 ft.
	3. Basketball goal shooting (30 seconds)	5 in 8	6 in 9	7 in 10	8 in 11	9 in 12

Automobiling

To obtain a Merit Badge for Automobiling, a Scout must:

1. Demonstrate ability to start and stop a motor, explaining what precautions should be taken.
2. Take off and put on pneumatic tires.
3. Explain the principles of construction and the functions of clutch (two types), carburetor, valves, magneto, spark plug, differential, and two different types of transmission, explaining what special care each of these parts requires, and be able to explain three differences between a two, and a four-cycle motor.
4. Demonstrate how to put out burning gasoline or oil.
5. Be able to pass an examination equivalent to that required for a license to operate an automobile in the community in which he lives.



Aviation

To obtain a Merit Badge for Aviation, a Scout must:

1. Have a knowledge of the theory of the airplane, helicopter, and ornithopter, and of the spherical and dirigible balloon.
2. Have made a working model of any type of heavier than air machine that will fly at least twenty-five yards; and have built a box kite that will fly.
3. Have a knowledge of the types and makes of engines used for airplanes, the best known makes of airplanes, and feats performed or records made by famous aviators.
4. Have a knowledge of names of famous airships (dirigibles) and some of their records.
5. Understand the difference between aviation and aeronautics, and know the types of apparatus which come under these two heads.



Basketry



To obtain a Merit Badge for Basketry, a Scout must

1. Plan and weave a large reed or raffia basket or tray.
2. Weave a cane seat for a stool, or a rush seat for a chair, or cane a chair.

Bee Keeping

To obtain a Merit Badge for Bee Keeping, a Scout must:

1. Examine a colony of bees, remove the combs, find the queen, and determine the amount of the brood, number of queen cells, and the amount of honey in the hive.



2. Distinguish between the drones, workers, eggs, larvae, pupae, honey, wax, pollen and propolis; tell how the bees make the honey, and where the wax comes from; and explain the part played in the life of the colony by the queen, the drones and the workers.

3. Have had experience in hiving or artificially dividing at least one swarm. Explain the construction of the modern hive, especially in regard to the "Bee spaces."

4. Put foundations in sections and fill supers with sections; and also remove filled supers from the hive and prepare the honey for market.

5. Write an acceptable article of not more than two hundred words on the differences in honeys according to the flowers from which the nectar is obtained.

OR

Comply with the 4H Club or Home Project Requirements in Bee Keeping as follows:

1. Own a hive of bees.
2. Do all work in care and management of the hive of bees.
3. Keep accurate cost account record of Bee Keeping during the season or year.
4. Exhibit honey samples as required by leaders in charge of 4H Club work.
5. Make complete report at the end of season or year as required by leaders showing profit or loss.

Beef Production

To obtain a Merit Badge for Beef Production, a Scout must:

1. Visit county, or state fair, or agricultural school and, from stock observed, name four beef breeds and show or explain markings and other characteristics for which each breed is noted.
2. Interview three farmers raising Hereford cattle, and state information received for fattening a pen of 2-year-old Herefords after taking them from green pasture.
3. Explain fully what is meant by *Baby Beef* production.
4. Show a cost accounting record of beef cattle covering a ten month's feeding program.
5. After visiting a stock show, or state experimental farm, describe your favorite breed of beef cattle. Give reasons.
6. Make a barn yard plan for proper handling of 60 head of beef cattle through the winter. Explain what parts of that plan are worked out on your own or another beef farm.
7. Tell the origin and history of one breed of beef cattle from their wild state to the present.



OR

Comply with the 4H Club work or Home Project Requirements in Beef Production, as follows:

1. Own a beef animal.
2. Do all the work in its care and management.
3. Keep accurate cost account records.
4. Exhibit animal as required by state and county leaders in charge.
5. Make complete report at end of season or year as required by leaders.

Bird Study

To obtain a Merit Badge for Bird Study, a Scout must:

1. Produce a list of forty species of wild birds which have been personally observed, and positively identified in the field.
2. Produce a list showing the greatest number of species that he has seen in the field in one week.
3. Produce a list, derived from personal observation, of twenty species of birds particularly noted for their value to agriculture in the destruction of insects.
4. Produce a list, derived from personal reading, of ten birds of prey particularly useful in the destruction of rats and mice.



5. Name ten species of birds particularly useful in protecting the trunks of trees from borers, bark-lice and scale insects.

6. Describe at least two bird boxes and two food tables that have been erected by him, the species of birds that have been attracted by them, and how many of the birds have nested in these boxes.

7. State what he has done to protect birds from wicked and unjust slaughter; to promote long, closed seasons for vanishing species; and to promote the creation of bird preserves and sanctuaries.

(BIRD STUDY IN HAWAII)

Since it is impossible for Scouts on the Hawaiian Islands to meet the requirements in Bird Study, as the required number of birds is not to be found on the Islands, these requirements are official for use in the *Hawaiian Islands only, but in no other section.*

1. Ascertain the approximate number of species of wild birds that occur in the Hawaiian group, and name and describe not less than seven species that have been personally observed by him, giving the English and Hawaiian name of each, and tell something of the home life (or habits) of each species of the seven.

2. Produce a list of all introduced species of birds found in the Islands and tell something of interest about each.

3. Name all species common to the Island where the Scout resides that are beneficial or detrimental to agriculture, giving reasons in each case.

4. Produce a list, from general reading, of ten birds of prey, from any country, that feed on rats and mice; ten that feed largely on fish; ten that feed on both animal and plant food.

5. State what is done by the Territory in the way of bird protection, and tell about the location, extent and purpose of the Hawaiian Island Bird Reservation.

6. State the reason for not building bird boxes in Hawaii. Tell why Scouts on mainland are encouraged to build bird boxes, food tables, etc., for the use of birds.

7. Name and briefly describe several birds from reading or from a visit to the museum, that are very rare or extinct. How many birds in the Hawaiian group are found in no other locality in the world; how many extinct species are known to have lived in Oahu?

Blacksmithing

To obtain a Merit Badge for Blacksmithing, a Scout must:

1. Make an open link of $\frac{3}{8}$ -inch stock.



2. Forge a chain hook out of $\frac{3}{4}$ x $\frac{1}{2}$ -inch soft steel, or $\frac{3}{4}$ -inch round iron.

3. Make a bolt of $\frac{1}{2}$ -inch stock.

4. Bend and weld three links and form them into a chain, these links to be fastened to the hook of

Requirement 2 by a ring, and links and ring to be made out of $\frac{3}{8}$ -inch round iron.

5. Make a straight lap weld of $\frac{1}{4}$ x 1-inch stock.
6. Make a cold chisel out of $\frac{5}{8}$ -inch hexagonal tool steel.
7. Temper a rock drill.
8. Explain how to harden and temper a cold chisel.

Bookbinding

To obtain a Merit Badge for Bookbinding, a Scout must:

1. Rebind in boards with leather or cloth some rare old book or a volume of a magazine.
2. Make a scrap-book bound in boards and cover with leather or cloth.



Botany

To obtain a Merit Badge for Botany, a Scout must:

1. Produce specimens of 50 species of flowering plants other than trees, without the roots (and in addition, where possible, 5 ferns) collected and named by himself; or in camp point out the different species to the Counselor in the field.

2. Be able to identify 10 plants by their seeds. Produce specimens of the seeds.



3. Give a list of at least 5 plants that are usually found growing together in woodlands, or 5 near water; and 5 found in open fields, or 5 along roadsides. Produce specimens.

4. Tell the parts of a complete flower. Submit drawings.

5. Tell in a general way how plants manufacture their food.

6. Explain how ferns differ from flowering plants; and tell how they are reproduced.

7. Submit specimens collected by himself (with names if known) of 5 Fungi, 5 Algae or 5 Lichens; 5 Mosses or 5 Liverworts; or if specializing in any one of the above classes, submit 10 different species of that class.

8. Name 5 kinds of edible wild fruits; 5 plants used medicinally and tell what used for; 3 wild plants that can be cooked as "greens," and 2 edible "roots."

9. Submit an essay of at least 200 words on the "Conservation of Wild Flowers," naming at least 4 in danger of extinction.

Bugling

To obtain a Merit Badge for Bugling, a Scout must:

1. Sound properly on the bugle the following calls: First Call, The Scout's Call, Reveille, Mess, To the Colors, Officers, Drill, Assembly, Recall, Fatigue, Church, Fire, Swimming, Retreat, Call to Quarters, Taps.



Business

To obtain a Merit Badge for Business, a Scout must:

1. Write a satisfactory business and a personal letter.
2. Know simple bookkeeping or shorthand and typewriting
3. Make a budget of his expenses, including clothes and incidentals, and keep a complete and actual account of personal receipts and expenditures for six months.



4. Be prepared to answer questions and problems in interest, percentage and discount.

5. Present the certificate of his employers that for the period of six months preceding he has put into practice the Scout Oath and Law and shown efficiency in his application to business; that he has been prompt and regular in his attendance, and has shown due regard for his general appearance by keeping his hair combed, his hands, nails and teeth clean, his shoes shined, and his clothes clean and orderly; or, one year of successful service as Scout Scribe of a Troop, under the same conditions

Camping

To obtain a Merit Badge for Camping, a Scout must:

1. (a) Have camped out fifty days and nights, sleeping under canvas, or under approved camp shelter, or in the open—including ten nights on hikes, during which ten nights he has set up or improvised his own shelter and cooked his own food, and



(b) Submit evidence that this camping was done under conditions in harmony with the minimum requirements of the National Camping Service.

2. Demonstrate how to put up and ditch a tent and arrange for over-night shelter in all weathers.

3. While on a hike or camp make a camp bed *on the ground*, using native materials gathered near-by, and *sleep on bed at least one night*.

4. Make a fire by rubbing sticks, using in so far as possible, native materials which he has gathered on hikes or in camp, *OR*

Make a fire with flint and steel, using for tinder, native material which he has personally gathered.

5. (a) Describe a camp-site which he has selected for a Patrol or Troop Camp, and give satisfactory reasons for his choice, and

(b) Draw a ground plan for lay-out of such camp, including location of spring or drinking water supply. Describe in writing (with illustrations) construction of a sanitary latrine and suitable means of disposal of garbage and refuse.

6. Construct a raft which will carry two people and their duffe safely, and demonstrate his ability to make practical use of it, *OR* either of the two following alternatives as determined by the local Court of Honor:

(a) Construct a model raft about 18x36 inches in size, to be fastened together with cord, bark, vines, etc.; no metal fasteners to be used. Describe the dimensions and kind of material required for the raft of which this is a model.

(b) Demonstrate ability to throw a diamond hitch and some other packing hitches, and properly pack camp equipment and supplies on a pack animal or dummy.

7. (a) Present himself for inspection correctly clothed and equipped for a three-day camp, and

(b) Demonstrate his ability to pack properly against wet weather and transport this equipment on his back, and

(c) Submit a satisfactory menu and list of provisions for a three-day camp.

8. Tell what precautions should be taken on a Patrol or Troop hike or camp; (a) during the swimming period, (b) in the use of boats or canoes.

Canoeing

To obtain a Merit Badge for Canoeing, a Scout must first have passed the Merit Badge tests for Swimming and must:



1. With a companion who has passed the Swimming Merit Badge tests demonstrate the proper method of entering and leaving a canoe, pushing off and landing

(a) From and to a pier or float in deep water.

(b) From and to a beach.

2. With companion, show proper form in paddling both bow and stern, on both sides of the canoe.

3. Alone in a canoe without ballast, paddle a straight course for one-quarter of a mile, then turn right about and left about, keeping paddle always on the same side of the canoe.

Change paddle to other side and return to starting point. If a quarter-mile straight-away course is not available, a shorter course may be used, the Scout paddling back and forth on a straight line until a quarter-mile has been traversed, keeping the paddle always on one side of the canoe; then making the right about and left about turns, afterwards shift the paddle to the other side and complete the second quarter-mile with paddle on that side.

(Applicant must be accompanied by a properly manned and equipped life boat.)

4. Lash paddles to form a portage yoke and carry a 12-foot or longer canoe, 200 yards without stopping. A companion may assist.

5. Jump out of a canoe in deep water and get back in proper form, without shipping water. (Applicant must be accompanied by a properly manned and equipped life boat.)

6. Fully dressed, turn a canoe completely over in deep water one-eighth of a mile from place of landing, along shore, if possible; get in and bring the canoe to the landing and land it high and dry without assistance. (Applicant must be accompanied by a properly manned and equipped life boat.)

7. (a) Know and demonstrate method of repairing a rip in the canvas cover of a canoe, using such material as he would buy and take with him.

(b) Explain method used when depending on such material only as is provided by nature.

(c) Explain how to repair a rip in the canvas when plank thereunder is broken.

(d) Explain how he would repair, so that he could use it, a paddle broken three inches above the blade.

8. With a companion and before the Counselor, load a canoe in good form properly trimmed, lashed and protected from wet, with a complete outfit for two Scouts for four days. (Material of weight and bulk equal to necessary food may be substituted.) Paddle a moderate distance, pick camp site, land, unload and make camp as if for the night. Break camp, repack outfit and return to the start.

9. Know at least two of the standard makes of canoes and types best adapted to trips on lakes or on rivers with quick water.

(a) Describe a birch bark canoe, a kayak, a dug-out.

(b) Explain what woods make the best paddles, and how long a bow paddle and a stern paddle should be.

10. Demonstrate to the satisfaction of the Counselor and the Court of Honor that he has thorough knowledge of the safety rules to be observed which will make him a safe canoeist, and that he is competent to observe them.

11. Promise on his honor to observe these rules and do his best to teach others to observe them whenever he has an opportunity to do so.

Carpentry

To obtain a Merit Badge for Carpentry, a Scout must:



1. Demonstrate the use of the rule, square, level, plumb-line, mitre, chalk-line and bevel.

2. Demonstrate the proper way to drive, set, and clinch a nail, draw a spike with a claw-hammer, and to join two pieces of wood with screws.

3. Show correct use of the cross-cut saw and of the rip-saw.

4. Show how to plane the edge, end and the broad surface of a board.

5. Demonstrate how to lay shingles.

6. Make a simple article of furniture for practical use in the home or on the home grounds, finished in a workman-like manner, all work to be done without assistance.

Cement Work

To obtain a Merit Badge for Cement Work, a Scout must:



1. Design and mould in a form a cement window-box or flower-pot, a garden jar, a garden seat, sundial, or hitching post.

2. Design and "build up" a cylindrical flower-pot, garden vase, or pedestal employing the process of turning or sweeping the form.

Chemistry

To obtain a Merit Badge for Chemistry, a Scout must:

Submit evidence of study and experimentation in Chemistry, and demonstrate his ability to apply the knowledge gained in discussing points outlined in Part I, and carry out the experiments suggested in Part II.

PART I

1. In building a fire one whittles or breaks sticks into small splints, starts the fire with a match, flint and steel, friction, or burning glass, and aids it with gentle fanning. Gentle fanning will aid, but violent fanning will extinguish a small flame. Very dry wood gives a hot fire; green or moderately wet wood will burn but give out little heat, while very wet wood will not burn. Discuss each point.

2. Suppose one has three very large bell jars or bottles inverted over a trough of lime water, thus inclosing air and sealing so that air can neither escape nor enter. Suppose one puts a boy into one, a lighted candle the size of the boy into the second, and a piece of phosphorus the size of the boy in the third. Soon the water will begin to rise in each. When the water has replaced 11% of the air in the first, the boy will collapse; when 6% of the air in the second is replaced the candle will cease to burn and when 21% of the air is replaced in the third no more change will take place. Fully interpret and explain.

3. Give (a) a list of the sources of water
- (b) a list of the uses of water
- (c) a list of the impurities found in water
- (d) a classification, with respect to injurious nature, of the impurities.
- (e) the special problems confronted in obtaining, treating and storing water for drinking purposes

4. A good Scout keeps his knife, axe and iron cooking utensils clean and dry, and as far as possible equips himself with aluminum canteens, etc. Explain.

5. Every boy uses "salt" in seasoning his food. Assume he has a salt mine and the whole world is dependent upon his mine and upon his knowledge of what might be done with it. Give a full discussion of what he might produce, provided all other chemicals and our present-day chemical machinery were available.

PART II

6. Prepare and collect two of the following gases:
Oxygen, hydrogen, chlorine and ammonia.

7. Find out which, if any, of five substances given him are carbonates, sulphides or chlorides.

8. Find out which, if any, of several liquids or solutions given him are acids or bases.
9. Extract metallic copper from its black oxide.
10. Give two experimental demonstrations that some substance catalyze certain reactions.

Citrus Fruit Culture

To obtain a Merit Badge for Citrus Fruit Culture, a Scout must:



1. Name three different kinds of citrus fruit, and two varieties of each kind.
2. Tell what points should be taken into account in selecting a site for a citrus orchard. Select a site favorable for each purpose; tell why it is suitable.
3. Name three diseases of citrus fruit, and give directions for the control of each.
4. Name the serious citrus insect pests in his region; give directions for their control.
5. Prune a citrus tree properly and give the reasons for each step.
6. Spend a half day in a citrus grove. Study the trees, their condition as to vigor, cultural practices and crop prospects, then write a report of his observations.
7. Tell the difference between a seedling tree and a budded tree; which is used in planting citrus orchards and why?
8. Tell what time of the year citrus trees are budded in the nursery; the different kinds of root stock that are used in propagating citrus trees; what one or ones are preferred for his section and why.
9. Bud a seedling stock; then demonstrate and describe briefly the details as he has performed them.
10. Describe in considerable detail the operation of picking and grading of fruit in a citrus orchard. Tell what points require special care.
- 11a. Describe a packing house in which citrus fruit is prepared for shipping. Trace the course of the fruit from the time it enters the packing house until it is packed in the car for shipment.
- 11b. Make a written report on some of the practices he has observed in a citrus orchard or in a packing house, which seem to him to be faulty; state how these practices could, in his judgment, be improved and the results which would follow the adoption of the changes he suggests.
12. On a map of the United States, block in the states or section of states in which various citrus fruits are now successfully grown, such as grapefruit, oranges, limes and lemons.

OR

Comply with the 4 H Club or Home Project requirements in the planting and management of citrus fruit trees as follows:

1. Own the number of trees required in the project.

2. Do all the work in the care and management of trees for one year.

3. Keep accurate record of costs, observations, results.

4. Exhibit products of citrus work as required by his county leader in charge.

5. Make a complete report at the end of season or year as required by leaders.

Civics

To obtain a Merit Badge for Civics, a Scout must:

1. State the principal citizenship requirements of a voter in his state, territory, or district.



2. Know the principal features of the naturalization laws of the United States.

3. Know how the President, Vice-President, Senators and Congressmen of the United States are elected, and give their terms of office.

4. Know the number of justices of the Supreme Court of the United States, how appointed, and their terms of office.

5. Know the various administrative departments of the Government as represented in the President's Cabinet.

6. Know how the Governor, Lieutenant-Governors, Senators, Representatives, or Assemblymen of his state are elected, and give their terms of office; or, if living in a territory or the District of Columbia, know who the corresponding officers are in that territory or district, how elected, and their terms of office.

7. Know whether the judges of the principal courts in his state, territory, or district are appointed or elected, and the length of their terms.

8. Know how the principal officers in his town or city are elected and for what terms.

9. Know the duties of the various city departments, such as fire, police, board of health, etc.

10. Submit a map upon which he has personally drawn the principal buildings and points of interest within a radius of two miles of his Troop headquarters. The map need not necessarily be drawn by the Scout.

11. Give satisfactory evidence that he is familiar with the provisions and history of the Declaration of Independence and the Constitution of the United States.

Conservation

To obtain a Merit Badge for Conservation, a Scout must:



1. Know the principal natural resources of his locality, county and state, and give the essence of any conservation laws affecting them.

2. Know for his region the principal game birds, animals, and fish, and the seasons during which they

are protected, how they are protected, and what are the results of protection.

3. Describe in detail one game bird, animal and fish common in his locality, and tell its habits of living, feeding, and rearing its young.

4. Present at least two photographs taken by himself of some phase of conservation of natural resources, and be able to describe thoroughly the conservation involved.

5. Present evidence of having directly assisted conservation by some practical deed, such as fighting a forest fire; checking erosion; planting trees; helping re-stock streams with fish; posting or distributing conservation notices; planting wild rice or other duck feed; feeding birds in winter; stopping stream and river pollutions.

6. Know the conservation laws in general of his state.

Cooking

To obtain a Merit Badge for Cooking, a Scout must:

1. Prove his ability to build a fireplace out of stone or sod or logs; build a fire in the fireplace, and cook the following dishes: camp stew, two vegetables, omelet, and rice pudding.



2. Demonstrate ability to mix dough, and bake bread in an oven; and also to make tea, coffee, and cocoa.

3. Carve properly and serve correctly to people at the table.

Corn Farming

To obtain a Merit Badge for Corn Farming, a Scout must meet any seven of the following requirements:

1. Give the life history and development of corn from sea maize to the present varieties.

2. Visit a county or state fair and name the different breeds and varieties of field corn shown at the corn exhibits.

3. Attend a state or county fair and name the breed or strain of four leading prize winning varieties of seed corn on exhibit.

4. Make an exhibit of one ear of each kind of field corn, sweet corn, and popcorn, grown in his county and be able to name the varieties represented.

5. Explain fully how corn pops and the necessary storage requirements for popcorn.

6. Demonstrate how to test corn for vitality.

7. Demonstrate how to string seed corn for drying purposes.

8. Demonstrate how to make or show an exhibit of a sawdust box test.

9. Determine how many hills of corn there are to an acre if the hills are planted $3\frac{1}{2}$ feet apart each way.

10. Explain the meaning of the following as applied to corn:



1—Vitality Test

2—Market Grade

3—Moisture Test

4—Average Stand

5—Check Row

11. Explain how corn is pollinated.

OR

Comply with the 4H Club or Home Project Requirements in Corn Farming as follows:

1. Own one acre of clean crop.
2. Do all work in care and management for season.
3. Keep accurate cost account and records as required by leader.
4. Exhibit corn samples as required by county or state leaders in charge.
5. Make complete report at end of season or year as required by leaders.

Cotton Farming

To obtain a Merit Badge for Cotton Farming, a Scout must:



1. On a map of the United States block in the sections where cotton is successfully grown.

2. Grow a patch of cotton successfully on the basis of instructions given by the County Agent representing the United States Department of Agriculture and his State College of Agriculture.

3. Demonstrate how to test cotton seed for vitality.
4. Give the domestic and commercial uses of cotton and cotton seed; name some of the more important by-products.
5. Name the more important insect pests that damage cotton, and give recommendations as to prevention and control of same.
6. Name the important cotton plant diseases and explain fully control measures for each.
7. By arrangement with the owner of a cotton plantation, take part in four operations in connection with a cotton crop and explain fully how he did the work.
8. Make a written report from personal observation on a cotton gin in action and on the conditions and operations of the nearest local cotton market.
9. Demonstrate how he would detect cotton goods made from long staple cotton.

10. Draw a plan for a moderate sized cotton plantation, showing field layouts and plan for 3 or 4 years rotation of crops with the cotton.

OR

Comply with the 4-H Club or Home Project requirements in Cotton Farming as follows:

1. Own a plot of cotton and do the work as required by state and county leaders.
2. Do all the work in its care and management.
3. Keep accurate record of costs and results.
4. Exhibit products as required by state and county leaders in charge.
5. Make a complete report at the end of season or year, as required by leaders.

Cycling



To obtain a Merit Badge for Cycling, a Scout must:

1. Ride a bicycle fifty miles in ten hours.
2. Repair a puncture.
3. Take apart and clean a bicycle, and put it together again properly.
4. Demonstrate how to make reports, if sent out scouting on a road.
5. Read a map; and report correctly verbal messages.

Dairying



To obtain a Merit Badge for Dairying, a Scout must:

1. Understand the management of dairy cattle.
2. Be able to milk.
3. Understand pasteurization of milk, and care of dairy utensils and appliances.
4. Test at least five cows for ten days each, with the Babcock test, and make proper reports.

OR

Comply with the 4H Club or Home Project Requirements in Dairying as follows:

1. Own a cow or calf.
2. Do all the work in its care and management.
3. Keep accurate cost account records.
4. Exhibit animal as required by state and county leaders in charge.
5. Make complete report at the end of season or year as required by leaders.

Electricity

To obtain a Merit Badge for Electricity, a Scout must:



1. Illustrate the experiment by which the laws of electrical attraction and repulsion are shown.

2. Understand the difference between a direct and an alternating current, and show uses to which each is adapted. Give a method of determining which kind flows in a given circuit.

3. Make a simple electro-magnet.

4. Have an elementary knowledge of the construction of simple battery cells, and of the working of electric bells and telephones.

5. Be able to replace fuses and to properly splice, solder, and tape rubber-covered wires.

6. Demonstrate how to rescue a person in contact with a live electrical wire, and have a knowledge of the method of resuscitation of a person insensible from a shock.

7. Diagram a typical electric lighting and wiring system of an automobile.

8. Make and submit a diagram or sketch, showing the lights, switches and convenience outlets which are controlled by each fuse in his dwelling house or a dwelling house.

9. Read correctly an electric meter and compute a residence bill.

Farm Home and Its Planning

To obtain a Merit Badge for Farm Home and Its Planning, a Scout must:



(1) Make a sketch of a farm house, showing location and relation of house to farm buildings, pens, yards, garden, fields with proper landscape effect.

(2) Present a landscape plan for a farm home showing both front and back yard effect and show drainage plans.

(3) Present a drawing plan of sewer disposal for a country home.

(4) Describe the value of windbreaks for a rural home, and the kind of trees of most value for such purpose in his section.

(5) Tell where and when he would plant nut and fruit trees for a country home.

(6) Name seven suitable shrubs, plants and vines for the farm door yard.

Farm Layout and Building Arrangement

To obtain a Merit Badge for Farm Layout and Building Arrangement, a Scout must:



1. Make a pen drawing of a barnyard plan providing for location of barns, feed lots, silos, hog houses, hen houses, machine sheds, hay barn and cow pasture.

2. Make a plan of a modern barn to house 28 cows, 5 horses, 50 tons of hay, providing for feed room, milk room, coolers, feed carriers, and manure carriers.

3. Give requirements for light, ventilation, and sanitation of a dairy barn.

4. Make a sketch of a poultry plant to house 500 birds.

5. Draw a plan and give the measurement requirements for a 100 ton silo.

6. Show a diagram of a farm of 160 acres indicating a proper layout of house, out buildings and all fields.

Farm Mechanics

To obtain a Merit Badge for Farm Mechanics, a Scout must:



1. Put a new handle in a farm tool, such as axe, rake, hoe, scythe, or shovel, and demonstrate how to sharpen a scythe and a mower sickle.

2. Suggest a plan for a labor saving operation involving the use of a gas engine on the Scout's home farm. If circumstances permit, put this plan into actual operation.

3. Demonstrate three ways of splicing wires in farm fencing.

4. Demonstrate how to adjust and actually operate one or more of the following farm machines: corn planter, seeder, tractor, mowing machine, silo filler, corn harvester or manure spreader, as used on the Scout's home farm.

5. Explain fully how to repair farm machinery and how to care for it, both when in use and in storage. Tell what experience he has had in the care and repair of such machinery.

Farm Records and Bookkeeping

To obtain a Merit Badge for Farm Records and Bookkeeping, a Scout must:



1. Explain fully what kind of records and books should be kept for a general purpose and stock farm. Tell which of these are kept on his farm.

2. Make and submit a poultry and egg production record for one month.

3. Make out a bill of sale for the following to Jones Produce Company, Chicago, Illinois.

160 lbs. of Spring Frys @ 38c

32 doz. eggs @ 42c

1 Cockerel for breeding
purposes, \$5.75

24 Pullets sold @ each \$2.50

4. Make a 7-day milk record for herd of cows.
5. Make out a sample of one year's birth record for 3 colts, 27 calves and 15 pigs.
6. Explain what records are needed in making out an income tax report for his State or Federal Income Tax.

Firemanship

To obtain a Merit Badge for Firemanship, a Scout must:

1. Demonstrate how to turn in an alarm for fire.
2. Demonstrate how to enter burning buildings.
3. Demonstrate how to prevent panics and the spread of fire.
4. Understand the use of hose—unrolling, joining-up, connecting to hydrant, use of nozzle, etc.
5. Understand the use of escapes, ladders, and chutes, and know the location of exits in buildings which he frequents.
6. Demonstrate how to improvise ropes and nets.
7. Explain what to do in case of panic, understand the fireman's drag, and how to work in fumes.
8. Demonstrate the use of fire extinguishers; how to rescue animals; how to save property; how to organize a bucket brigade; and how to aid the police in keeping back crowds.



First Aid

To obtain a Merit Badge for First Aid, a Scout must:

1. Tell what to do with an apparently drowned person, and demonstrate the prone pressure method of artificial respiration.
2. Show how to apply bandages to the head, ankle, and hand.
3. Show how to apply a tourniquet to stop arterial hemorrhage at any point: (a) on the upper extremity below arm-pit; (b) on lower extremity below hip joint.
4. Demonstrate how to arrest venous hemorrhage on any part of the body.
5. Show how to apply a gauze dressing to a wound so that it will not be contaminated—that is, do it in an aseptic manner.
6. Show how to support by splints, etc., a broken arm or a broken leg so that the patient can bear transportation.
7. Explain what to do for the bite of a mad dog, a venomous snake, a mosquito, and a scorpion sting.



8. Show how to rescue an individual from contact with an electric wire.

9. Produce satisfactory evidence that he has taken advantage of every opportunity to put into actual practice his knowledge of first-aid work during a period of at least six months since becoming a First Class Scout. (Badge—green cross on red ground.)

First Aid to Animals

To obtain a Merit Badge for First Aid to Animals, a Scout must:



Demonstrate a knowledge of the following domestic animals, horses, cattle, sheep, swine, dogs, and treatment of the same in the following emergencies:

1. A broken leg in any animal.
2. Severe colic of a domestic animal.
3. Lameness in the horse.
4. Exhaustion in the horse.
5. Choking in cattle or horses.
6. Bloat in cattle and sheep.
7. Milk fever in cows.
8. When a horse in harness falls in the street.
9. When animals are being cruelly treated.
10. In case of suspected rabies in the dog.
11. In case of severe bleeding in any animal.

Forestry

To obtain a Merit Badge for Forestry, a Scout must:

1. (a) Identify 15 kinds of tree or shrub; or
- (b) If there are less than 15 such kinds growing within a five-mile radius of the Scout's home, identify three-fourths of the different kinds available.



2. Collect and identify ten different kinds of wood and be able to tell some uses for each, which he himself has observed.

3. (a) Collect and identify seeds of 10 different kinds of tree or shrub or
- (b) If there are less than 10 kinds of tree or shrub which seed within a five-mile radius of the Scout's home, then collect and identify seeds from three-fourths of such kinds.

4. Describe (or, if possible, point out in the woods) the damage that fire does to tree trunks, bark, roots and seedlings.

5. Describe how to fight and stop a surface fire, or a ground fire if such occurs within his region, and tell the chief causes of forest fire.

6. Measure the heights and diameters of three good-sized trees, report measurements, and describe the methods used.

7. Present evidence that he has done something specific in furtherance of forestry, equal in service to one of the following:

(a) Planting 100 trees, preferably seedlings grown by himself.

(b) Thinning or "weeding" (cutting out worthless or inferior species) one-quarter acre of young or medium-aged woodland.

(c) Helping to extinguish a forest or woods fire, or reporting same to some responsible person.

(d) Collecting and burning fifty tent caterpillar or other equally destructive insect egg masses or nests.

Foundry Practice

To obtain a Merit Badge for Foundry Practice, a Scout must:



1. (a) Make a freehand working drawing of a flask used for bench moulding in the foundry.

(b) Describe same flask.

2. (a) Show by section sketch a mould of a plate 12" long, 6" wide, 1" thick with gate and vents.

(b) Construct the mould.

3. Make a perspective sketch of a pulley pattern 6" in diameter, 2" face, the center to be cored 2" by use of core prints.

4. Construct a wood pattern and core box as per sketch outlined in question 3; use shrinkage rule for gray iron. Change measurements to allow for finish all over casting and proper draft for removing pattern from mould.

5. Describe how a cupola operates.

6. (a) Describe a process for cleaning one of the above castings when removed from mould.

(b) Clean one of the above castings.

7. Describe the properties in sand that are best suited for foundry use and tell how to prepare sand for use.

8. Tell what important Safety precaution should be taken to protect the workers in a foundry—by the employer—by the employee.

NOTE: In each case when a mould is required the pattern must first be made.

Fruit Culture

To obtain a Merit Badge for Fruit Culture, a Scout must:

1. Prune a fruit tree and explain why such pruning was done.

2. Make a plan for planting a 2-acre fruit orchard.

3. Prepare and demonstrate how to use the following apple or other fruit tree sprays:

(a) Dormant spray

(b) Bud spray

(c) Blossom spray



4. Demonstrate how to grade and pack two kinds of fruit.
5. Explain requirements for planting and management of two kinds of small fruit.
6. Bud or graft two fruit trees.
7. Demonstrate the propagation of grapes, strawberries and raspberries, and explain when and how to plant.

Gardening

To obtain a Merit Badge for Gardening, a Scout must:



1. Do two of the following things:

- (a) Operate a garden plot of not less than 20 feet square and show a net profit of not less than \$5 on the season's work. Keep an accurate crop report and show exhibit of garden products produced.
- (b) Grow 1/20 acre of potatoes or other garden crops such as tomatoes, sweet corn and popcorn. Select the hills from which seed potatoes are to be taken. Grade potatoes in three divisions - market, medium and culls. Keep an accurate crop report of the season's work.

(c) Keep both back and front yards in good condition for the summer vacation of three months, which will include care of garden, flowers and shrubs, mowing of lawn, keeping the yard neat and clean. Keep an accurate record of the vacation's work.

(d) Build a back-yard trellis, and grow a covering of vines for it in a season's or year's time.

2. Submit a detailed account stating how the work chosen was performed.

OR

Comply with the 4H Club or Home Project Requirements in Corn Production as follows:

1. Own or rent ground of 1 acre as required by leaders.
2. Do all work on crop for one season.
3. Keep accurate cost account records.
4. Exhibit products as required by state and county leaders in charge.
5. Make a complete report of his records and experiences as required by leaders.

Handicraft

To obtain a Merit Badge for Handicraft, a Scout must meet any 18 of the following requirements:



light bulbs.

1. Paint a door or a piece of furniture.
2. Whitewash or calcimine a ceiling.
3. Repair gas fittings.
4. Repair sash lines.
5. Repair window and door fastenings.
6. Replace gas mantles, or fuse plugs and electric

7. Replace washers. 8. Solder. 9. Hang pictures and curtains.
10. Repair window shades.
11. Repair curtain or portiere rods.
12. Lay carpets. 13. Mend clothing. 14. Mend upholstery.
15. Repair furniture. 16. Repair china. 17. Sharpen knives.
18. Repair gates or sagging doors.
19. Repair screens on windows and doors.
20. Varnish floor or wood work, or revarnish furniture.
21. Wax or polish floor.
22. Set glass.
23. Clean out a sink trap.

Hiking

To obtain a Merit Badge for Hiking, a Scout must:



1. Show a thorough knowledge of the care of the feet on a hike.
2. Walk five miles per day, six days in the week, for a period of three months. This may include walking to and from school or work. He shall keep a record of his hikes daily, preferably in his diary, a transcript to be made an exhibit before the Court of Honor.
3. Walk ten continuous miles on each of two days in each month for a period of three months; in other words, six walks of ten miles each during the three months.
4. Walk twenty miles in one day.
5. Locate and describe interesting trails and walk to some place marked by some patriotic or historical event.
6. Write his experiences in these several walking trips with reference to fatigue or distress experienced, and indicate what he has learned in the way of caring for himself as regards equipment such as camping and cooking outfit, food, foot-wear, clothing, and hygiene.
7. Review his ability to read a road map (preferably a Government topographical map), to use a compass, and make a written plan for a hike from the map.

Hog and Pork Production

To obtain a Merit Badge for Hog and Pork Production, a Scout must:



1. Visit five or more farms and name and describe five breeds of hogs found thereon.
2. Confer with meat market men and from their instruction draw a diagram of a hog, and mark and name the parts for butcher classification and sale of pork products.
3. Explain the different uses of hog products for both commerce and food.

4. Salt at least 2 pounds of pork or smoke 2 pounds of ham, and explain method.

5. Attend state or county fair, and describe life history of one breed of hogs shown at such fair.

6. Write out a balanced ration for fattening hogs, and give reason for its preparation.

7. Explain fully symptoms of hog cholera and preventive measures used.

8. Name the different kinds of food rations needed for hogs from weaning time to market.

OR

Comply with the 4H Club or Home Project Requirements in the Pig Club as follows:

1. Own a pig or hog.
2. Do all the work in its care and management.
3. Keep accurate account records.
4. Exhibit the pig or hog as required by state and county leaders in charge.
5. Make complete report at end of season or year as required by leaders.

Horsemanship

To obtain a Merit Badge for Horsemanship, a Scout must:

1. Give the common name for the right and left sides of a horse, and state, using the common name, what side of a horse is habitually approached, and how to act while doing so.

2. State principal temperamental requirements of a good horse, also principal external points of a horse, and point out on a live horse thirty important points.

3. Know what defects and blemishes are. State the most common defects and blemishes, and how he would treat them.

4. Explain how he would examine a horse for soundness: and state the opinions of horsemen on the degrees of soundness.

5. Give several common diseases of the horse, the symptoms thereof, and the treatment.

6. (a) State fully what he knows of the stable management and the care of a horse from actual experience of at least one month.

- (b) A full period of handling a horse in an approved camp under competent leadership may be substituted.

7. Point out ten important parts of the saddle, and show how he would put it on and remove it.

8. Point out ten important parts of the bridle and show how he would fit, put it on, and take it off.

9. Illustrate on a horse the correct way of mounting and the correct position in the saddle.



10. Know the aids in riding and how they are used. Illustrate on a horse how he would move forward, increase or decrease the gait, halt, back, and change direction.

Indian Lore

To obtain a Merit Badge in Indian Lore a Scout must:



1. Give history of the Indian Tribe that once lived nearest his home, telling something of their customs and habits, where the survivors remain, and their present condition. Visit them if possible.

2. Make an Indian costume complete and correct as to detail for one of the tribal groups, to consist of head-dress, shirts, leggings or kilt, and moccasins.

OR

Make and decorate authentically three of the following articles, using Indian methods in so far as possible: drum (tom-tom), rattle, bow and arrows, quiver, coup stick, or lance, pipe, pipe bag, belt, war bonnet, crow belt or "bustle", war club, totem pole, council seat or canoe paddle.

3. Make a model of a teepee, or of any other type of Indian dwelling.

4. Take part in an Indian Pageant, entertainment, or camp fire ceremonial in which at least three dances based on authentic Indian themes are used.

5. Sing three Indian songs including the Omaha Tribal Prayer and tell something of their meaning.

6. Demonstrate three Indian games that can be played in camp or at meetings.

7. Know at least fifty signs in the Indian Sign Language and with them carry on a conversation for three minutes, or tell a story in sign talk that will take at least that much time.

Insect Life

To obtain a Merit Badge for Insect Life (Entomology), a Scout must:



1. Go into the country with the Examiner and show to him the natural surroundings in which certain specified insects live, and find and demonstrate living specimens of the insects, telling something of their habits or of the nature of their fitness for life in their particular surroundings. The Examiner shall ask for an insect from each of five of the following groups without forewarning to the candidate, but the Scout shall have the choice of kind within each group.

1. (a) May-fly nymphs; (b) caddis worms; (3) ant-lion larvae (doodle-bugs).

2. Larvae and pupae of mosquitoes.
3. (a) Centipedes; (b) scorpions; (c) orb weaver spiders.
4. (a) Scale insects; (b) plant lice.
5. (a) The nest of a solitary bee or wasp and its maker (mud daubers excluded); (b) bumble-bees and their nest.
6. (a) Back swimmers; (b) whirligig beetles (demonstrate a peculiarity of their eyesight); (c) water striders.
7. (a) Carrion beetles; (b) tumble-bugs; (c) leaf-beetles.
8. (a) Colony of carpenter ants or (b) of agricultural ants; (c) black-fly larvae; (d) white ants.
9. (a) Crane-flies; (b) robber-flies; (c) damsel-flies and their nymphs.
10. Caterpillar of (a) cabbage butterfly, (b) alfalfa butterfly, (c) monarch butterfly, (d) sphinx moth, (e) tiger beetles.
11. (a) Grouse locusts; (b) meadow grasshoppers; (c) katydids.
12. (a) Squash bugs; (b) chinch bugs; (c) larvae of gall wasps and their galls; (d) other kinds of gall insects.

II. Make an artificial ants' nest suitable for observation and maintain a colony of ants for a period of at least two weeks. Make a record of interesting facts and habits observed. Or do the same with an observation hive of bees.

III. Make a collection of fifty species of insects. This collection will be judged upon 4 points: 1. correctness of names; 2. neatness of arrangement; 3. perfect condition of the specimens (clean, unbroken and properly mounted); 4. adherence to the following rules:

a. It is recommended that each species should be represented by two male and two female specimens when such specimens can be easily found and the sexes may be readily identified.

b. A neat written or typewritten label stating the name of the species (either common name or scientific, or both) to be pinned on the left of, or above, the row of specimens of each species.

c. The species of each family and order to be arranged together; the sequence of orders and the families to be best followed in a textbook; the scientific name of each to be indicated by appropriate labels.

d. Entomological pins to be used when obtainable instead of common pins.

IV. Give evidence that he has bred through all its life stages, from egg or young larvae to adult, at least one species of insect. Mosquitoes, blow-flies, cabbage butterflies, fruit-flies, and ants are suggested as easy species to rear.

(Near relatives of insects are included in the Insect Life Merit Badge requirements as a matter of convenience, and in compliance with the common custom of extending the term entomology to include the study of the close relatives of insects.)

Interpreting

To obtain a Merit Badge for Interpreting, a Scout must:



1. Carry on a simple but sustained conversation in a modern foreign language for a period of not less than five minutes.
2. Listen to and translate a statement or address delivered in a modern foreign language and lasting not less than two minutes by a person to whom the language is a native tongue.
3. Write a simple letter in a modern foreign language on a subject given by the Counselors.
4. Read and translate from sight a passage of not less than 200 words from a book or newspaper, in any modern language not native to the pupil.

Journalism

1. "Cover" satisfactorily the following assignments:

- (a) News incident.
- (b) Routine club or society meeting.
- (c) Lecture, sermon, or political address.
- (d) Theatrical performance.
- (e) Subject or event to be suggested by counselor.



2. Write:

- (a) An editorial.
- (b) A publicity article.
- (c) A feature, or human interest story.

3. (a) Explain the respects in which the articles in requirement one and two are different; (b) secure the publication of at least one of these articles.

4. (a) Describe the elements of a good lead paragraph; (b) explain the use and importance of headlines; (c) prepare for the linotype operator three good headlines for stories submitted in requirement one.

5. Read and correct proof, using the conventional proof-reader's signs (manuscript of two typewritten pages to be furnished by counselor).

6. Submit four styles of advertising copy for a local magazine or newspaper.

7. (a) Submit suggestions for photographic or cartoon copy; (b) explain briefly the various engraving processes.

8. Prepare a dummy for the printer representing one issue of an eight-page paper, magazine, catalogue, or circular.

9. Produce copy to show what is meant by each of the following terms: linotype, handset, galley proof, electrotpe, form, mat, stereotype, case.

10. Explain what steps are necessary to copyright a manuscript, and tell what rights are granted by a copyright, and for what period.

11. Serve as a reporter (either voluntary or paid) for local school, farm, club, trade, or other paper for a period of six weeks after becoming a First Class Scout, or until at least six news items shall have been accepted.

12. Present a scrap book prepared in the customary way to include unpublished copy, as well as clippings of published material, filed under date and place of publication.

The following requirement may be chosen as an alternative to the above twelve:

Conduct an authorized, chartered amateur publication, under the standards set by the National Council, Boy Scouts of America, for at least five consecutive issues. Scouts who are members of the Editorial Staff (editor-in-chief and not more than three assistants) of an authorized, chartered Local or Area Council publication and who work under supervision of Local Scout authorities may also receive the Merit Badge in Journalism.



Landscape Gardening

To obtain a Merit Badge for Landscape Gardening, a Scout must:

1. Tell where in his locality the two general plans of Landscape Gardening may be found. Describe each and tell how he would improve the landscaping on the properties named.

2. Name and give the advantages and disadvantages of at least five trees frequently used in Landscape Gardening in his community, telling their characteristics. Explain from observation in his community how they have been used effectively.

3. Name and give the main characteristics of at least fifteen shrubs, evergreen or deciduous, which he has observed in his locality for landscape work (height, flowering or non-flowering, space required, propagation).

4. Make a working drawing of a landscape project, using appropriate plants of his selection. This may be foundation planting, boundary planting, or screen planting of some building or grounds, preferably his own home.

5. Make a drawing of a flower garden or border, and arrange the planting so that once they start to bloom there will be as nearly as possible a continuous showing of flowers at some point in the garden during the season.

6. Plant the above and take care of it, and if flowers are sold or given away, make a report.

7. Keep a time sheet of all work put in, and its cost, including shrubs, seeds, plants, etc.

Leathercraft

To obtain a Merit Badge for Leathercraft, a Scout must:



1. Design and tool some simple object in leather: such as a mat, blotter-pad corners, bill fold, magazine cover, belt.

2. Know the source and method of preparation of the best grades of leather for craftwork.

Leather Work

To obtain a Merit Badge for Leather Work, a Scout must:



1. Have a knowledge of tanning and curing.

2. Sole and heel a pair of boots, sewed or nailed, and generally repair boots and shoes.

3. Dress a saddle and repair traces, stirrup leathers, etc., and know the various parts of harness.

Life Saving



To obtain a Merit Badge for Life Saving, a Scout must first have met the Merit Badge Requirements for Swimming, must have spent at least six hours in preparation and practice, and must demonstrate the following:

1. In deep water, disrobe and swim 100 yards.
2. Surface dive in 6 to 8 feet, recovering various objects three times, and a 10-pound weight once.
3. Correct approach, 30 feet, and head carry, 30 feet.
4. Correct approach, 30 feet, and cross-chest carry, 30 feet.
5. Correct approach, 30 feet, and hair or arm-lock carry, 30 feet.
6. Tired swimmer's carry, 30 feet, preceded by 30-foot approach.
7. Release double grip on one wrist. Left and right.
8. Release front strangle hold. Left and right.
9. Release back strangle hold. Left and right.
10. Resuscitation 1½ minutes' demonstration, prone pressure method.

Machinery

To obtain a Merit Badge for Machinery, a Scout must:



1. Describe the construction of a lathe, planer, shaper, drill press, and steam boiler; also explain the purpose for which each is intended.

2. Name at least twelve of the principal hand tools used by machinists.

3. Construct a wood or metal model illustrating the principles of levers, gears, pulleys or block and tackle.

Marksmanship

To obtain a Merit Badge for Marksmanship, a Scout must:



1. Know the Boy Scout Marksman's Code and agree to follow same.

2. Make not less than 30 points standing, out of a possible 50 points in 5 shots; and 35 points prone, out of a possible 50 points in 5 shots; equaling a total score of 65 points out of a possible 100, at a distance of 50 feet from the muzzle of the rifle to the target. (See note 2 for conditions.)

3. Produce evidence that all practice and the test have been conducted under a range officer whose appointment has been approved by the Local or National Council.

(1) The Boy Scout Marksman's Code

I hereby promise upon my honor NEVER to:

1. Thoughtlessly point my gun at any human being under any circumstances.
2. Handle a fire-arm without first examining to make certain it is empty.
3. Load a fire-arm while persons are in front of me.
4. Shoot at or kill a harmless animal or bird for the mere pleasure of killing.
5. Skylark with fire-arms in hand or while engaged in target practice.
6. Engage in aiming and snapping the hammer except with the fire-arm pointed toward the target.
7. Shoot in the open without first taking every precaution for the safety of others.
8. Be unsportsmanlike when engaged in contests of skill with fire-arms.
9. Lay aside a fire-arm without cleaning after being used.
10. Take anything for granted and always bear the above rules in mind.

(2) Conditions

RIFLE: Any .22 calibre rim fire, weighing not over ten pounds.

SIGHTS: Other than telescopic in front of firing-pin.

TARGETS: Fifty foot official Boy Scout marksman target. 2 to 10 count.

RANGE: Fifty feet from muzzle of rifle to target.

GUN SLING: Gun Sling may be used in connection with one arm only. It will not be placed around any other portion of the body. It may be attached only to the barrel and butt.

POSITION—Standing: Erect on both feet, all other portions of body free from everything. The hip rest position with elbow on hip and rifle resting on tips of fingers is authorized. The use of the belt to assist in holding the elbow in this position is prohibited.

Prone: Body extended on the ground, head toward target, no portion of arms except the elbows shall rest upon the ground, floor, or any artificial support, rifle to be free from any artificial support. Use of sling allowed.

Masonry

To obtain a Merit Badge for Masonry, a Scout must:



1. Lay a straight wall and a corner.
2. Make mortar and describe process.
3. Use intelligently a plumb-line, level, and trowel.
4. Build a stone oven.

5. Demonstrate a knowledge of the various uses for cement.
6. Build a dry wall.

Metal Work

To obtain a Merit Badge for Metal Work, a Scout must:

1. Design and make some simple object in which the operation of soldering is employed: such as box corners, a desk set, candlestick, ink-well.



2. Design and make some simple object in which the operation of riveting is employed: such as a candlestick, candle shade, Paul Revere lantern, stationery holder.

3. Design and make some simple object in which the operation of sawing or piercing is employed: such as a watch-fob, escutcheon plate, hinges, candle shade.

4. Design and shape some simple object by beating metal: such as a tray, bowl, spoon, ink-well.

Mining



To obtain a Merit Badge for Mining, a Scout must:

1. Make a collection of twenty-five minerals, labelled and prepared for display.

2. Explain what he means by a mineral. What tests he applies in identifying a new specimen when it is

given him.

3. Describe the following:—noting under the ores what metal each contains, and recording where and how he obtained his specimen.

Ores—12 specimens in all: Limonite or brown iron ore. Hematite either red or specular, and magnetite. Copper ores, pyrites or iron sulphide or fools' gold. Galena—lead ores, zinc ores.

Rock makers—Produce and label 3 of each: Quartz, calcite, feldspar, mica, hornblende.

4. Rock formations: Tell what the following are:

(Igneous) : Granite, basalt:

(Sedimentary) : Sandstone, conglomerate, limestone:

(Metamorphic) : Slate, marble, gneiss.

5. Explain the following: What is a dike? What is a bed; a stratum? What is an anticlinal fold; a synclinal fold? What is a fault, how many common kinds?

6. Explain the following: What is a placer deposit? What metals do we obtain from placers? How are they mined? Why are these particular minerals found in placers?

7. Explain how rock or ore is mined on surface.

8. Explain how and when we mine coal by stripping; how and when by underground working; what is meant by an entry, a chamber, an air-course; "robbing pillars"; the room and pillar system of local mining; the "Long-wall system of mining."

9. Tell what other ores are mined in beds and how these are mined.

10. Explain how we locate petroleum and natural gas pools, and how we obtain the oil and gas.

11. Tell what we mean by "milling," "ore-dressing" or "concentration" and why we practice it. Give an example.

12. Make a test of three kinds of ore and three rocks.

13. Describe the principal machinery used in a quarry or in a mine.

14. Give five rules of safety in and around mines.

15. Make up two lists of all the mineral substances that are used in and around his home. In the first list, he must put those that are permanently useful, like silverware, and in the second list, those that are destroyed in use, like coal.



Music

To obtain a Merit Badge for Music a Scout must:

1. Play a standard musical instrument satisfactorily, as used in orchestra work, or demonstrate that he is sufficiently proficient in the art of singing to read music at sight, following the melody, and carry his part against another in singing a duet or quartette, and sing a prepared solo showing that he knows the various musical signs which are common to vocal music.

2. Read at sight simple music required for the fourth grade in musical education.

3. Write a satisfactory essay of not less than five hundred words on the history of American music.

Nut Culture

To obtain a Merit Badge for Nut Culture, a Scout must:



1. Know the methods used in the propagation of at least four of the following nuts which involve the practices of budding, grafting, layering, and growth of seedlings: Pecan, Persian Walnut, Almond, Hazel, Black Walnut, Chestnut, Butternut, Hickory, Japanese Walnut.

2. Know the principles underlying the practice of grafting and the methods used in topworking nut trees.

3. Know the characteristics of the root systems of at least two kinds of nut trees in each of the following two groups:

Group One

1. Hickory
2. Pecan
3. Black Walnut
4. Persian Walnut

Group Two

1. Butternut
2. Japanese Walnut
3. Hazel
4. Almond

4. Know the essential features of successful nut tree planting—i.e., the time of year for the region concerned, the necessary pruning at planting, etc., and the reasons for the practices involved.

5. Know the most injurious pests and diseases which affect the most important kinds of nut trees grown in his section of the country and the measures necessary for their control.

6. Know how properly to care for nut trees not grown in orchards. Or, if the Scout is in a region where nuts are grown commercially, know the methods of soil management practiced in successful commercial orchards.

7. Grow at least one kind of nut tree from seeds, the seedling to be used either as a stock for budding or grafting, or as a tree to be set out.

8. Either bud or graft a living tree successfully with some superior variety of nut so that the bud or graft lives at least one growing season.

9. Plant at least two nut trees which start growth and live for at least one growing season.

10. Practice the removal of limbs in pruning so as to be able to demonstrate the way to make cuts properly.

11. Take care of one or more black walnut or other trees during the summer, keeping them free from worms or other caterpillars that can be controlled without spraying apparatus. Or, if the Scout lives in a region where nut orchards are sprayed,

keep an accurate record of the spraying method used in a commercial orchard, giving dates of spraying, materials used and pests and diseases the spray is intended to control.

12. Make a collection of eight kinds of nuts including several varieties of each kind. Or, if the Scout is in a section where nuts are commercially grown, make a collection of eight named varieties of the most important kind of nut for the region, and be able to identify the varieties. Gather specimens of nuts which represent parent tree and nut seed such as he would recommend for planting.

Painting

To obtain a Merit Badge for Painting, a Scout must:



1. Demonstrate how to combine pigments in order to produce paints in shades and tints of color.

2. Demonstrate how to add positive colors to a base of white lead or of white zinc.

3. Understand the mixing of oils, turpentine, etc., to the proper consistency.

4. Paint a porch floor or other surface evenly and without laps.

5. Know how and when to putty up nail holes and uneven surfaces.

6. Present for inspection a panel covered with three coats of paint, which panel must contain a border of molding, the body of the panel to be painted in one color and the molding in another.

7. Demonstrate a knowledge of the care and proper method of cleaning paint brushes.

Pathfinding

To obtain a Merit Badge for Pathfinding, a Scout must:



1. Demonstrate a general knowledge of the district within a three-mile radius of the local Scout Headquarters or his house so as to be able to guide people at any time day or night to points within this area.

2. Know the population of the five principal neighboring towns and cities as selected by his Guide or Counselor. Demonstrate directions for reaching them from Scout Headquarters or his house.

3. If in the country, know the breeds of horses, cattle, sheep and hogs owned on the five neighboring farms; if in the city, demonstrate directions to tourist camp and to five places for purchasing food supplies.

4. Demonstrate how to direct tourists from his home to gas, oil, tire and general auto repair service.
5. Give telephone number, if any, and directions for reaching the nearest police station, fire-fighting apparatus, Court House or Municipal Building, the nearest County Farm Agent's office, doctor, veterinarian and hospital.
6. Know something of the history of his community and the location of its principal places of interest and public buildings.
7. Submit a scale map, not necessarily drawn by himself, upon which he has personally indicated as much as possible of the above-required information.

Personal Health

To obtain a Merit Badge for Personal Health, a Scout must:

1. Write a statement on the care of the teeth, and show that his teeth are in good condition as a result of proper care.
2. State a principle to govern eating; and state in the order of importance five rules to govern the care of his health.
3. Present satisfactory evidence that he has not been absent from school or work for a period of at least six months as a result of his failure to observe these rules.
4. Tell the difference in effect of a cold bath and a hot bath.
5. Describe the effects of alcohol and tobacco on the growing boy.
6. Tell how to care for the feet on a march.
7. Describe a good healthful game and state its merits.
8. Describe the effects of walking as an exercise.
9. Tell the dangers of specialization and overtraining in the various forms of athletics and the advantages of an all-round development.



Photography

To obtain a Merit Badge for Photography, a Scout must:



1. Demonstrate knowledge of what a camera is and his familiarity with its essential parts, and explain the purpose of each of the following:
Finder, lens, shutter, diaphragm opening, bellows, focusing scale.
2. Understand the basic principles of composition, explaining such points as harmonious grouping of objects or individuals, careful selection of background, good handling of light and shade.

3. Submit twelve *good quality* pictures taken by himself, but not necessarily finished by himself, demonstrating his knowledge of the principles stated in Requirement 2. Not more than six pictures may be submitted from any one of the following groups, and the collection must include one from each group.

Group A—Landscapes or water pictures.

Group B—Groups of persons or animals.

Group C—Person; domestic animal or bird; wild animal or bird; article made by Scout for some Scout Requirement.

Group D—Architectural subjects or street scenes.

4. Demonstrate a knowledge of the steps required in the developing and printing process.

Physical Development

To obtain a Merit Badge for Physical Development, a Scout must:

1. Produce satisfactory evidence of habitual good posture.
2. Have no remediable physical defects uncorrected.
3. Produce satisfactory evidence of daily practice of hygienic habits and a thorough knowledge of a standard book on hygiene.



4. Pass three of the tests, according to his weight, in the Athletics Merit Badge Schedule.

5. Demonstrate proper form in running, high jump, hurdle and shot-put.

6. Make up a daily drill of ten exercises for Scouts, giving proper exercise for whole body; present evidence of having practiced this daily for six months and having taught the same to two or more boys for a period of three months.

7. Demonstrate reasonable efficiency in two outdoor games requiring physical development; give evidence of having taught at least ten Scout games to a group of boys, and know ten more.

Pioneering

To obtain a Merit Badge for Pioneering, a Scout must:

1. Tie twelve kinds of knots quickly and be able to splice rope.



2. Lash spars properly together for scaffolding.

3. Build a bridge or derrick (each) capable of supporting two hundred pounds in weight.

4. Make a camp kitchen.

5. Build a shack of one kind or another suitable for three occupants.

Plumbing

To obtain a Merit Badge for Plumbing, a Scout must:

1. Submit threaded joints connecting two pieces of iron or brass

pipe with a fitting, a repaired lead, iron or brass pipe; and explain how to do all of the above.



2. Be able to repair a Fuller tap and a compression tap.

3. Understand the drainage system of a house, and explain the use of traps and vents.

4. Understand the ordinary hot and cold water system of a house, and explain how to make the system safe from freezing if the house has to be left without fires in the winter.

5. Know the regulations of the local health department with regard to plumbing.

Pottery

To obtain a Merit Badge for Pottery, a Scout must:



1. Design and build by hand a pottery form; such as a vase, bowl, or ornamental tile to be fired and glazed.

2. Design and throw a pottery form on a potter's wheel to be fired and glazed.

Poultry Keeping

To obtain a Merit Badge for Poultry Keeping, a Scout must:

1. Have a knowledge of incubators, foster-mothers, sanitary fowl houses, coops and runs.



2. Understand, through experience, rearing, feeding, killing and dressing birds for market.

3. Be able to candle and pack eggs for market; describe the differences, in candling, which distinguish the bad eggs from the good; and tell how eggs are graded.

4. Raise a brood of not less than ten chickens.

5. Report his observations and study of the hen, turkey, duck and goose.

OR

Comply with the 4H Club or Home Project Requirements in Poultry Management as follows:

1. Own a pen of chickens.

2. Do all the work in its care and management as required in the project by leaders.

3. Keep accurate cost account records.

4. Exhibit poultry as required by state and county leaders in charge.

5. Make complete report at end of season or year as required by leaders in charge.

Printing

To obtain a Merit Badge for Printing, a Scout must:

1. Explain the point system, and identify ten sizes of types.
2. Set and correctly space type by hand from manuscript.



3. Set and print a display card or advertising handbill from original copy for use in connection with the local Scout work.

4. Print one hundred copies of same on a 10 x 15, or smaller, job press, demonstrating correct method of washing-up, inking, use of setting pins, use of make-ready, and accurate feeding.

5. Read and mark proof correctly.

6. Give the grade or kind of paper most suitable for various classes of printing.

Public Health

To obtain a Merit Badge for Public Health, a Scout must:

1. State the chief causes and modes of transmission of each of the following diseases: Tuberculosis, typhoid fever, diphtheria, malaria, hookworm disease.



2. Draw a diagram showing how the house-fly carries disease.

3. State the precautions which should be taken to prevent the spread of contagious disease during the sickness of the patient and following his removal or recovery.

4. Describe good methods by which a community may dispose of garbage and sewage, and may obtain a safe water supply, and tell what methods are used in his own community or on his own premises.

5. State the precautions which must be taken in producing and handling milk to make it as safe as possible from a health standpoint, and tell what the local laws require in this respect, and the extent to which they are enforced.

6. Tell how to plan and manage a small camp in a sanitary way.

7. State the reasons why school children should undergo a medical examination.

8. Tell how he may cooperate with the health authorities in preventing disease.

9. Describe different ways in which a person may become immune to infectious diseases.

10. Produce satisfactory evidence that he has rendered service in some effort recommended by the public health authorities in the interest of public health.

Radio

To obtain a Merit Badge for Radio, a Scout must:

1. Receive and send correctly not less than five words per minute.



2. (a) Explain how and what he would transmit in order to establish communication with another station.

(b) Make up a sample radiogram, including the "body" of the message.

3. Tell what the United States Radio Laws state about wave length, power, operating hours and kinds of apparatus for amateur radio stations; whether a license is necessary for all such stations; whether the operator needs a license; how one knows what call to use at an amateur station.

4. Write down five of the most important "Q" signals, and give the meaning of each.

5. Draw from memory, using correct symbols, the circuit diagram for a low power, short wave transmitting set, and describe briefly the principal pieces of apparatus required. Describe each part of the apparatus, and explain how it works. Explain how to use a wave meter in connection with this transmitting apparatus to secure the proper wave length of radiation.

6. Draw from memory, using correct symbols, a wiring diagram of a complete receiving apparatus, using a vacuum tube detector, fixed and variable condensers, resistances, batteries, phones and ground. Describe each part of the apparatus and explain how it works.

7. Describe a vacuum tube, name some of its possible uses, and show a diagram for one of them.

8. Explain the difference between continuous wave, and modulated or interrupted continuous waves.

9. Construct with his own hands a practical working receiving set, and demonstrate its operation for receiving signals from a station 25 or more miles away.

10. Explain how to install an antenna, how to connect it to the sending and receiving set, how to ground it properly and how to protect it against lightning and power wires.

NOTE.—The holding of a first grade amateur operator's license and a regular or special amateur station license will exempt the holder from examination on counts 1, 2, 3 and 4. Both the operator's license and the station license must be presented before the local Court of Honor and shown to be in force at the time the badge is awarded.

Reading

To obtain a Merit Badge for Reading, a Scout must:



1. Read at least one book a month for a year after becoming a Second Class Scout, including among the twelve books read three standard works and three on some phase of Scouting. Present a list of books read.

2. Present a book review or tell which books he likes best and why.

3. Describe the character in fiction he liked best in his reading.
4. If a library is available, have a membership card, which must be presented to his Counselor.
5. List several books he plans to read in the next twelve months.
6. Tell where he gets his books, and present a list of books which he owns.
7. Name the books which his reading, or speaking about, has encouraged other Scouts to read. Give the names of boys or boy.
8. Be a subscriber and a reader of a boy's magazine for at least the preceding six months.
9. Tell what other magazines he reads and why.
10. Present a short essay on the value of reading.



Reptile Study

To obtain a Merit Badge for Reptile Study, a Scout must:

1. Know what representative species of reptile (snakes, lizards, turtles, crocodiles) are found in his own state or locality. Be able to identify all these species.
2. Know distribution and typical life history of the crocodilians inhabiting the United States.
3. Be able to distinguish the poisonous reptiles of the United States.
 - (a) The one kind of poisonous lizard.
 - (b) Four kinds of poisonous snake, by shape, size, markings, heads, tails or by teeth (fangs).
 - (c) The location and operation of the fangs of the four kinds of snake.
 - (d) General distribution of the poisonous forms.
 - (e) Whether these poisonous snakes are aggressive or defensive, and how far they can strike.
4. Know eight harmless snakes, four of which feed on destructive rodents, and know the food of each. Know how they capture and eat their food. Know something of the usefulness of the snake to man. Know how young snakes are produced—from eggs or living young: how and why a snake sheds its skin; why snakes are partly blind prior to shedding; the function of the snake tongue.
5. Know some of the important differences between the groups (snakes, lizards, turtles, crocodiles) as to (a) eyes, (b) ears, (c) teeth, (d) heart, (e) lungs, (f) limbs, (g) tails, (h) scales (shell).
6. (a) Know the typical life history of turtles, including where and when the eggs are laid, the number, color, shape and covering, and period of incubation. Recognize and describe five kinds of turtle, one of which shall be edible; Or—
 - (b) Know the typical life history of lizards; how young are produced—from eggs or living young. Recognize and describe five kinds, preferably common to his own region. Know the common

food of lizards and their usefulness to man in thus controlling pests. Know how and why a lizard will drop its tail and how it regrows.

7. Know the relative position of reptiles in the animal kingdom. Explain why, where and when reptiles hibernate, and the duration of the hibernation period.

8. (a) Know what first aid treatment should be given in case of poison snake bite and the reasons for the same.

(b) Know the use of anti-venin serum.

Safety

To obtain a Merit Badge for Safety, a Scout must:

1. Make a safety inspection of his home, accompanied by one or both parents.



(a) List all possible causes of accidents, the report to be signed by one of his parents.

(b) State in writing what he has done to correct at least three dangerous conditions if found in his home.

2. Report in writing the number of accidental deaths in his city or county for the last calendar year and classify them according to principal causes. (Sources of information: Police Department, Health Department, Community Safety Council.) Explain how this information has been or may be used to prevent such accidents, or improve such conditions through his troop, school, community and home.

3. Report in writing three or more dangerous conditions in the neighborhood in which he lives, describing each accurately and suggesting a practical remedy for each.

4. Report in writing three or more dangerous conditions or practices in the neighborhood of his school, or his place of employment, stating what he has done personally to correct them.

5. Present satisfactory evidence from his school principal that he has actively shared in the safety work of the school over a period of at least ten weeks and has at all times done his best by his example and attitude to interest his schoolmates in safety activities. Or present satisfactory evidence that he has performed genuine and substantial safety services for a similar period of ten weeks.

6. Interview a representative of an electric or steam railroad to determine the chief causes of railroad accidents in the territory of the railroad, and report the interview in writing.

7. Make a canvass of the members of his class (or the members of his Troop) getting an account of at least ten different kinds of accidents which have happened at play. (This means in summer or winter sports, camping, at play on the street, etc.)

(a) List these accidents, classifying them by cause.

(b) Suggest practical ways of preventing similar accidents.

8. Explain at least six of the principal state or local regulations for motorists and pedestrians in his community.

(a) Describe how he applies these principles daily while walking, roller-skating, riding a bicycle or in connection with other sports.

(b) State at least four practical ways in which he can help to prevent street accidents, particularly to old people, little children and those who are physically handicapped.

9. Pass a satisfactory examination on the history of the safety movement and the extent of the accident problem today, showing a knowledge of the principal agencies, governmental and private, the primary work of which is to safeguard human life.

Salesmanship

To obtain a Merit Badge for Salesmanship, a Scout must:

1. Analyze an article of merchandise from each of five retail stores, and make a report of what happens to each article of merchandise investigated from the time it leaves the manufacturer until it reaches the consumer.



2. Explain the value of a salesman between manufacturer and jobber, between jobber and retailer; or between manufacturer and retailer.

3. Sell a definite quantity of merchandise, the total sales value of which is in excess of \$10.00, and give his actual selling experience, telling the methods he used to influence people to buy his merchandise, and how he overcame "selling resistance."

4. Indicate the place or importance of selling in business.

5. Explain how ideas are formed and how a salesman can lead a customer to decide to buy.

6. Sell at a profit something he has made or grown. Keep the necessary records to enable him to fix the right selling price and tell how much profit he has made.

7. Obtain, and hold for three months, a selling job for the hours after school, Saturday afternoons or vacation. Describe what is necessary to sell the things he handles.

8. In uniform, visit a business concern and learn how their product is sold. Describe the selling process. Take with him an outline of at least ten questions prepared in advance.

9. Name five fundamental requirements of successful salesmanship.

10. Go to some successful practical salesman in his community and find out what he thinks of selling as a life work. Write out in 500 words or more his conclusions of what the salesman tells him of salesmanship as a life work.

11. (a) Explain what he understands to be the meaning of the statement that "Every man is a salesman. He must sell himself, his time, his ideas, his service."

(b) Explain why TRUTHFULNESS about an article is one of the outstanding requirements of all good selling.

(c) Explain what it is that every salesman sells to his employer.

(d) Explain how courtesy to prospective customers aids selling.

(Be prepared to give examples.)

Scholarship

To obtain a Merit Badge for Scholarship, a Scout must:

1. Have been in attendance at school, grammar, high, private, or night school, for a period of at least one year since becoming a First-Class Scout.



2. Present a certificate from the teacher or principal covering the same period and showing:

(a) That his attendance has been satisfactory;

(b) That his deportment has been above the average;

(c) That during the school year he has secured a satisfactory average in all of his studies.

Sculpture

To obtain a Merit Badge for Sculpture, a Scout must:

1. Make a shaded drawing in pencil or charcoal of a cylindrical object and a rectangular object grouped together a little below the eye.



2. Model in clay or plastecine or soap two or more example of Greek or Renaissance ornament, from a cast or model.

3. Make a copy in clay or plastecine, in full size, of a part of an antique statue, as a head, a hand, or a foot.

4. Make a statue "in the round" of a head, of life size, from a living model.

5. Make a study "in the round" of an animal or a group of animals.

Seamanship

To obtain a Merit Badge for Seamanship, a Scout must:

1. Prove intimate working knowledge of all Tenderfoot knots and rolling hitch and bowline on a bight and carrick bend.

2. Make the following splices—eye splice, long splice, and short splice.



3. Reeve off and understand the use of any simple tackle and fling a rope coil.

4. Use palm and needle to whip the end of rope and to make a herring-bone stitch, a flat seam, and a round seam in sail canvas.

5. Fully dressed in shoes, trousers and jumper or coat, jump overboard in deep water, undress and, accompanied by a boat, swim 100 yards, under the supervision of his official Examiner.

6. Handle a rowboat with a pair of oars; also act as coxswain, giving orders for getting under way and making landings properly. Scull a boat with one oar.

7. Have a working knowledge of:

- (a) the lead line and patent log;
- (b) anchors and use of ground tackle;
- (c) weather wisdom and tides;
- (d) charts and pilotage.

8. Box the compass by quarter-points and point out direction by the stars and sun.

9. Know the lights used on sail and power vessels and be familiar with the elementary rules of the road.

10. Handle a boat under sail on all points of sailing, getting under way, making landing at dock or alongside another vessel and reefing.

Sheep Farming

To obtain a Merit Badge for Sheep Farming, a Scout must:



1. Explain the use of sheep for domestic purposes, for commerce and industry.

2. Attend a state or county fair, or state experiment farm and name and explain characteristics of 4 leading breeds of sheep shown. Explain which is his favorite and why.

ite and why.

3. Give origin and history of one breed of sheep.

4. Visit two meat markets and obtain information for making a drawing of a sheep, then mark off the meat grade sections of the animal.

5. Exhibit and explain four of the different grades of wool from sheep.

6. Explain what wool is used for, in home, commerce and industry.

7. Make an exhibit of pictures of at least five sheep breeds and show samples of wool produced by each.

OR

Comply with the 4H Club or Home Project Requirements in Sheep Farming as follows:

1. Own a sheep.

2. Do all the work in its care and management for a season.

3. Keep accurate cost account and records as required by leaders.

4. Exhibit animal as required by state and county leaders in charge.

5. Make complete report at end of season or year as required by leaders and show profit or loss.

Signaling

To obtain a Merit Badge for Signaling, a Scout must:

1. Send and receive a message in Semaphore Code, not fewer than forty-eight letters per minute, or in the General Service (International Morse) Code, not fewer than twenty-four letters per minute.



2. Send and receive signals by sound, using the buzzer, sounder, whistle, or bugle.

3. Make a buzzer outfit, wireless outfit, or a heliograph outfit and send a message of not less than twenty-four letters with the same.

Soil Management

To obtain a Merit Badge for Soil Management, a Scout must:



1. Dig and exhibit samples of five different types of farm soils from garden or farm. (Bottle samples and name.)

2. Explain fully the two best methods known for the testing of sour soils.

3. Tell of what soil is composed; give chemical parts.

4. Explain the proper management of wet soils; draw and explain a drainage plan suitable for effective use on a farm.

5. Explain fully the different methods used for enriching the soil on a farm and the relation of weeds to soil management.

6. Plant four different legumes of value in soil building for his own State and locality.

7. Explain what the figures 4-8-1 mean when dealing with commercial fertilizers.

Stalking

To obtain a Merit Badge for Stalking, a Scout must:



1. Know and recognize the tracks of ten different animals or birds to be found in his vicinity. For boys living in the city the tracks of domestic animals or birds may be counted.

2. Track an animal for one-quarter mile over ordinary ground without snow. In special cases, where large wild animals cannot be found, a trail made by "tracking irons," or by a boy on stilts, may be substituted.

3. Make clear, recognizable photographs of live wild animals or birds, and score 25 points on the following basis:

(a) Each different species of wild bird, photographed on the nest, or of young birds, to count two points; (b) Each species of adult wild bird, photographed away from the nest, to count three points; (c) Each species of small wild animal to count four points; (d) Each species of wild animal larger than a woodchuck to count five points.

Stamp Collecting



To obtain a Merit Badge for Stamp Collecting a Scout must:

1. Own and exhibit a collection of 500 or more well-conditioned stamps personally collected by the Scout, including at least 50 different countries.
2. Exhibit 10 of the following types of stamps: air mail, envelope, surcharged, imperforate, perforate, postage due, precancelled, flat plate, rotary press, telegraph revenue, and registration.
3. Exhibit and explain the following classes of stamp, and name one country of issue: postage, commemorative, special delivery, parcel post, private proprietary, semi-postal, and war tax.
4. Exhibit and explain cancellations and their relation to the value of a stamp, including each of the following:
 - (a) Pen.
 - (b) Office (town).
 - (c) Killer.
 - (d) Colored.
 - (e) "Tied to cover."
5. Explain the following terms used by stamp collectors:
 - (a) Wove, laid, granite, and silk paper.
 - (b) Water marks.
 - (c) Engraved, typographed, lithographed.
 - (d) Perforation, rouletting.
6. Exhibit the number indicated of each of the following issues of the United States: 10 different commemorative, 10 present issue, 4 present envelope, 1 memorial, 1 flat plate, 1 rotary press, and 4 different air mail stamps.
7. Demonstrate ability to "catalogue" accurately five stamps which are to be furnished by the Counselor.
8. Explain in full how the "condition" of a stamp affects its value.

Surveying

To obtain a Merit Badge for Surveying, a Scout must:

1. Map correctly from the country itself the main features of half a mile of road, with 140 yards each side, to a scale of two feet to the mile, and afterwards draw same map from memory.



2. Measure the width of a river.
3. Measure the height of a tree, telegraph pole, or a church steeple, describing the method adopted.
4. Be able to measure gradient.
5. Understand the use of the plane table.

Swimming



To obtain a Merit Badge for Swimming, a Scout must:

1. Be able to swim one hundred yards.
2. Dive properly from the surface of the water.
3. Demonstrate breast, crawl, and side strokes.
4. Swim on the back fifty feet.

Taxidermy

To obtain a Merit Badge for Taxidermy, a Scout must:



1. Have a knowledge of the game laws of the United States and the state in which he lives.
2. Preserve and mount the skin of a game bird, or animal, killed in season, and without violation of any law.
3. Mount for a rug the pelt of some fur animal.

Textiles

To obtain a Merit Badge for Textiles, a Scout must:



1. Identify a piece of woolen cloth.
Identify a piece of worsted cloth.
Identify a piece of cotton cloth.
Identify a piece of silk cloth.
Identify a piece of artificial silk cloth.

Submit a collection of samples.

State how he would distinguish each of the above.

2. (a) Know the physical properties (appearance) in the raw state of wool, worsted, cotton, silk and artificial silk.

(b) Know how yarns made from these fibres differ in their character, and state the means by which he would distinguish between them.

3. Distinguish between a woven fabric and a knitted fabric, and state which wears the better and why.

4. State how wool, cotton and silk are grown, and name the principal sources of supply of each.

5. Outline the different operations that would be used in converting some fibre into cloth. Name the machines that would be used and the kind of cloth that would be made. Report whether data for this test are gathered from visits to a factory or from texts.

6. Produce a sample and tell what properties a good piece of cotton or woolen wearing apparel should possess.

7. State what the size numbers of yarn signify. Illustrate with at least two samples.

8. State which fibres are easier to dye and which are harder, and explain why in each case.

9. Name the two principal sources of dyestuffs.

Weather

To obtain a Merit Badge for Weather, a Scout must:



1. Have a general knowledge of composition of the air, referring to both constant and variable elements of the air, and what function each performs.

2. Develop quite broadly the subjects, moisture, fog, hail, rain and snow.

3. Explain points connected with electrical and optical phenomena in the air, i.e., have a knowledge of the following: rainbow, mirages, looming, halos, Northern lights, St. Elmo's fire, lightning and thunder. Describe as many of the above as he has seen.

4. Have a knowledge of the use and construction of and demonstrate his ability to read a barometer, thermometer, anemometer, psychrometer and rain gauge. Have constructed a weather vane. Know the weather signals or storm signals.

5. Outline in writing a simple statement of the climate of the United States and of his own state.

6. Explain the value of weather prediction. Write a brief account of the United States Weather Bureau, stating what daily, weekly and monthly publications are sent out by this Bureau. Be able to interpret the charts and graphs contained in their publications.

7. Keep a daily record for a month of the following: Dew or frost in the morning; at a specific hour each day (this hour must be the same every day), the direction of the wind, the temperature, kind of clouds (if any) in the sky. (State if it rains or snows at this hour.)

8. Name some places where, during severe thunder storms, the danger from lightning is great, some places where the danger is small.

Woodcarving

To obtain a Merit Badge for Woodcarving, a Scout must:



1. Plan and carve an appropriate design in low relief on some simple object such as book ends, a tray, a pair of bellows, a chest, a screen, a clock case, a letter opener, or a box.

2. State the qualities of hard wood and soft wood, and the best woods to use in woodcarving; name, describe, and explain how to sharpen the different kinds of woodcarving tools; and explain methods of handling the grain of the wood in designing.

Wood Turning



To obtain a Merit Badge for Wood Turning, a Scout must:

1. Demonstrate the proper use of the roughing gauge, turning gauge, skew chisel and parting tool and know how to sharpen each.

2. Demonstrate the proper method of putting stock in the lathe and taking it out; between live and dead centers and on a face plate.

3. Have a general knowledge of wood turner's lathe, and know how to figure the speed at which the lathe is turning.

4. Have a general knowledge of an automatic wood turning lathe.

5. Turn a project using a face plate and one between "centers."

6. Make duplicate parts in a project such as four legs for a table or two candle sticks or bud vases.

7. Know how French polish is applied.

Wood Work

To obtain a Merit Badge for Wood Work, a Scout must:



1. Design and construct a small piece of furniture in which mortise and tenon or dowel joints are used, such as a tabouret, a small table, a chair, a foot-stool, a writing desk, etc.

2. Make plans or intelligent rough sketch drawing of the piece selected.

Zoology



To obtain a Merit Badge for Zoology, a Scout must:

1. (a) Name the phyla of animals.

(b) Give the meanings of the names of such phyla.

2. (a) Define the terms vertebrate and invertebrate.

(b) Give example of each.

3. Classify into vertebrate or invertebrate, and name the phylum or class of each of the following: bees, crayfish, worms, snails, spiders, sponges, cats, birds, snakes, bats, jellyfish, corals, oysters, butterflies, amoeba, paramecia, man.

4. Know the correct methods of dissecting an invertebrate and a vertebrate.

5. Be able to dissect a frog and a worm.

6. In the frog find and tell uses of: ear, tongue, lung, stomach, small intestine, large intestine, anus, liver, heart, nerves, blood vessels.

7. In the earthworm, find and tell uses of: mouth, pharynx, oesophagus, crop, gizzard, intestine, dorsal blood vessel.

8. Draw the arterial system of the frog and the circulatory system of the earthworm.

9. (a) Know what a fertilized egg is.

(a) Describe its development to the end of the gastrule stage of the embryo.

10 Define zoology.

CHAPTER IV

*How to Become a Veteran Scout***Veteran Scout Association**

When a Scout has served a total of five years registered* in the Movement, and has become a First Class Scout, provision is made for a suitable recognition of his long and faithful service through the establishment of the *VETERAN SCOUT ASSOCIATION*, to membership in which he now becomes eligible. Life membership in the Association costs but fifty cents, and entitles one to wear the Veteran Scout Badge on his uniform, and to continue to wear the Scout Uniform and Badge of highest rank while in the United States of America, even though circumstances have compelled him to give up, at least for the time, any other connection with Scouting.

The obligations of membership in the Veteran Scout Association are as follows: (a) to live up to his Scout obligation; (b) to keep the local Scout authorities in the community in which he lives informed as to his availability for service to the community in case of emergency; (c) to take as active a part in the promotion of the cause of Scouting as the circumstances and conditions in his case permit.

For Veterans of ten, fifteen and twenty years' ser-



Five Year
Vet. Scout's Pin



Ten Year
Service Pin



Fifteen Year
Service Pin



Twenty Year
Service Pin

* Five years need not be consecutive.

vice upon registration as such and payment of registration fee of fifty cents, appropriate badges are also available.

In some communities the local members of the Veteran Scout Association have organized themselves into a Veteran Scout Corps and, besides camping together and having various social activities together, have taken definite leadership training, so that they could, in fulfilling their obligations as Veteran Scouts, be of greater service in their own Troops and otherwise to Scouting. Veteran Scouts should remain registered members of their Troops. Scout Officials are also eligible.

If the Veteran Scout maintains active Troop relationship he must pay the usual registration fees annually. The Scout must maintain active relationship to secure **ten and fifteen year credit.**

Certificate of Service

No Scout should be permitted just to "drop out" of Scouting. Every effort should be made to hold him as long as possible as an active member of the Troop, and, when this is no longer possible, as an associate member.

When the time comes, however, that a Scout must sever his connection with his Troop, he should, if his record has been creditable, and his reasons for leaving the Troop satisfactory, be given a Certificate of Service, or Honorable Discharge. Such certificate has been prepared and may be secured by Scoutmasters (through the Local Council, if there be one) from the Supply Department of the National Council.

These certificates should be presented—say at the annual meeting of the Troop—with an appropriate and impressive ceremony.



CHAPTER V

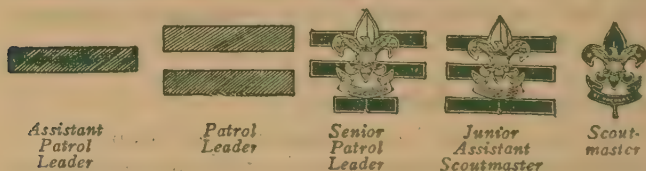
How to Become a Scoutmaster

The job of the Scoutmaster ranks at the top of civic service in these United States.

To give leadership, companionship, example, FRIENDSHIP and QUALITY to a group of earnest youth is a real privilege and an equal responsibility.

The Scoutmaster is the most important cog in the great Scout Movement—he, indeed, is the mainspring on which the Movement depends.

Every real Scout looks forward some day to being, himself, the leader of a Scout Troop.



The steps of experience are clear cut:

1. Assistant Patrol Leader.
2. Patrol Leader.
3. Senior Patrol Leader.
4. Junior Assistant Scoutmaster.
5. Assistant Scoutmaster.
6. SCOUTMASTER.

While one may become a Scoutmaster *without* passing through these other offices — yet a Scout in the Troop *looks ahead*, and is “prepared” and when the chance offers to HELP the Scoutmaster—he HELPS him put away equipment, he HELPS him get the “bunch” together, he HELPS him train new recruits, he quietly HELPS him maintain good spirit, he also ASKS the Scoutmaster HOW HE CAN HELP MORE! This is leadership training and service.

And when the chance offers to hold any of the four offices, the Scout steps in gladly and HELPS and WORKS and carries responsibility bit by bit. He is getting training for the big job ahead—SCOUTMASTER!

After becoming Assistant in one's own Troop, it may become necessary to go to another Troop needing leadership—in that case consult the Scoutmaster and be ready for SERVICE.

Community Service

The Scout who does not become a Scoutmaster is urged to seek opportunities for leadership in various boy's clubs, associations, schools, churches, young people's societies in his community. These various groups all need leaders, especially such as have had leadership training such as Scouting offers.

Real Scouts—Participating Citizens

Indeed, the Scout Movement has failed to bear fruit with the individual Scout unless he desires to be the citizen who bears his full part in community life. Not only to obey laws, register, vote, honestly pay taxes and do jury duty, BUT ALSO to carry his share according to his talents and training—his share of the social and religious and child problems of his city.

This has been the experience with the hundreds of thousands of real Scouts in past years that they have shown that they were real Scouts by becoming real Citizens. Those of today will do no less!





CHAPTER VI

Scouting for Country Boys

By O. H. BENSON

Almost any boy, whether he lives in the open country, village, or rural town, will want to be a Scout, and, fortunately, the scope of the Boy Scouts of America is such that he may become a Scout either in the city or the open country.

Scouting is being offered to country boys by the method known as the Farm or Home Patrol.

The Farm or Home Patrol is designed to meet the needs of small groups of boys who desire to do Scout work and enjoy the advantages of Scout training but who, for one reason or another cannot at the time join a regular Troop. The services of an adult Scoutmaster, recommended by at least three fathers of the boys who are to form the Scout unit must be secured. The Farm or Home Patrol consists of not less than three



Front



DOG

Hind

Trot

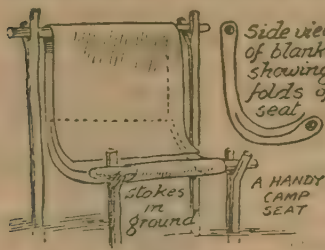
Walking



The One Bird Found in Every Country

nor more than eight boys. The Patrol may later become part of an organized Troop, if circumstances permit and should hold itself ready so to do.

The Farm or Home Patrol may meet in homes of Scouts, in Grange halls, local churches or other convenient meeting rooms. This Patrol will not be chartered but each boy will pay the regular 50 cent registration fee. Its special characteristic is the fact that it is particularly sponsored by the home instead as in the case of a standard Troop, an institution.



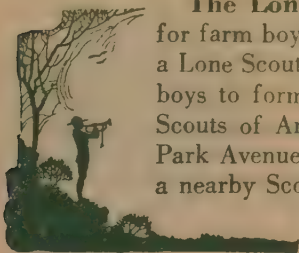
The Scoutmaster will plan activities for evening work, week-end hikes, and camping programs for farm boys so as to accommodate their needs, interests, and respect in a Scout-like way the wishes of parents in their need

for help in chores and farm operations.

A Scout's opportunity in "Preparedness" and "Daily Good Turn" as affecting not only human beings but farm animals, plants, soil, machinery, and farm buildings will prove daily challenges to real Scouting.

If you, as a Scout, know of farm boys who are not Scouts, write, 'phone, or see them and tell them how to form a Patrol and secure a Scoutmaster.

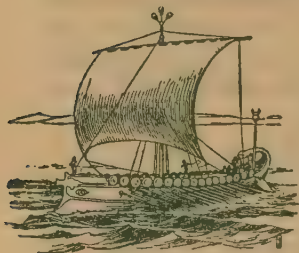
The Lone Scout Method of Scouting for farm boys enables a farm boy to join as a Lone Scout without even waiting for other boys to form the group. He sends to Boy Scouts of America, Lone Scout Division, 2 Park Avenue, New York, N. Y., or calls up a nearby Scout Council Office, and asks for an application blank.





CHAPTER VII

Sea Scouting



Did you ever pick up a big conch shell on the sea shore? Hold it to your ear and you get a sound like the rolling of the waves upon the beach.

Just so in the history of human kind the call of the sea sounds in the ears of youth. These are old habits of the race—as the early periods of

civilization happened along the water ways of the world.

The sea is like a human being—it has moods. It is bright as the sun is bright—it is dark when the sky is heavy—it frowns when storms gather.

'Twas the call of the sea that lured Columbus across the Atlantic—that sent Magellan around the globe. It is the highway for trade and commerce.

Sea Scouting opens to the older Scout the door to the sea—to knowl-



edge of boats, how to make them, how to run them—Sea Scouting shows how to rig a ship and plans for the Sea Scout, when ready, to cruise out on the great waters.

Older Scouts may either organize a Sea Scout Patrol (called a "ship") as part of a regular Troop or a large group may join to form a Sea Scout Troop.

A Sea Scout manual is available and the National Council has a Sea Scout Department, ready to help in getting such work under



way. The U. S. Navy Department has made available good sized boats when certain conditions have been met.

Cabin Boy

Any registered Scout or Scout Official may become a Cabin Boy by taking the "Sea Promise."

The Sea Promise

On my honor, I will do my best.

1. To learn swimming and always "Be Prepared" to render aid to those in need in connection with water accidents.



2. To make it my practice to know the location of the life-saving devices aboard every boat I board; and to men

tally outline my responsibility in maintaining order for myself and shipmates in case of emergency.

3. To be vigilant and cautious, always guarding against water accidents.

4. To cooperate with the responsible authorities for the observance of all regulations for the conduct and safety of boats and ever seek to preserve the motto of the sea, "Women and Children first."

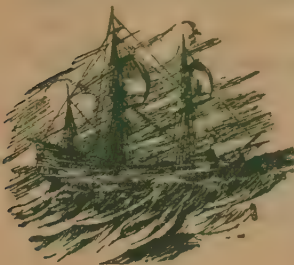


He also must

1. Demonstrate his ability to tie all knots in the "Handbook for Boys," required for Tenderfoot Rank.

2. Demonstrate the proper method of using the life belt and life buoy.

3. Write an article of at least 200 words on the sea history of the United States.



He wears the Cabin Boy's Badge on the left pocket below badge of rank; an anchor, gold on a blue field. At the age of fifteen years he is eligible to join a Sea Scout Ship's company and may then (but not before) wear the Sea Scout Uniform.

Part VI

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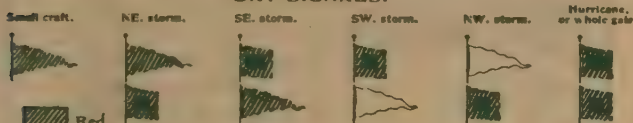
CHAPTER I

Woodcraft

(1) Weather

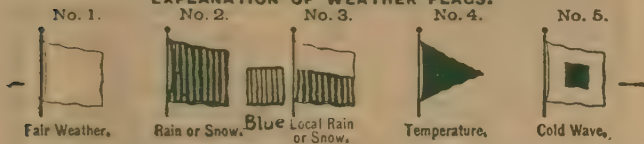
U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.
SMALL CRAFT, STORM, AND HURRICANE WARNINGS.

DAY SIGNALS.



U. S. DEPARTMENT OF AGRICULTURE, WEATHER BUREAU.

EXPLANATION OF WEATHER FLAGS.



The temperature flag placed ABOVE another signal means that signal and RISING temperature, or warmer—placed BELOW it means FALLING temperature, or colder.

Weather Wisdom

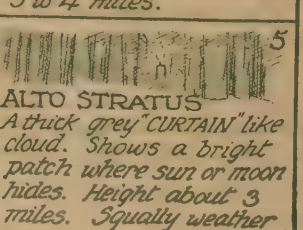
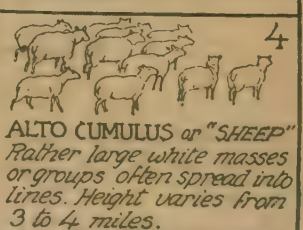
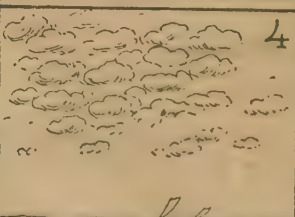
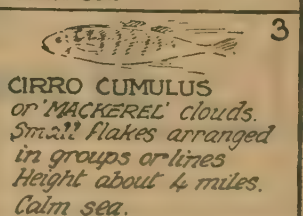
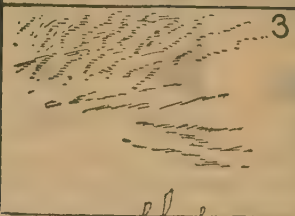
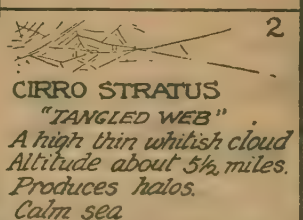
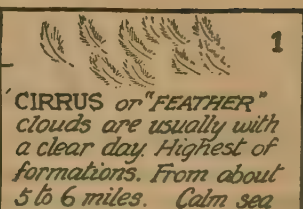
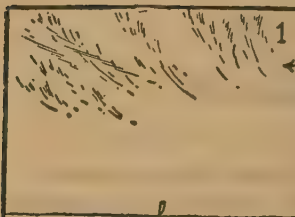
CLOUDS

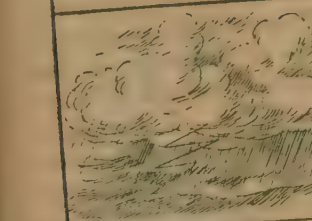
The alto-cumulus cloud (4) is usually a fairweather cloud though in the winter snow flurries may fall from it at times.

The strato-cumulus (6) is frequently seen in the fall months, and while accompanied by strong winds its threat of snow or rain rarely produces either.

The cumulus cloud (8) is the typical summer sky cloud, but when the sun has caused enough moisture to evaporate from the earth below, these clouds get so full of moisture that rain or snow follows.—in other words cloud (8) passes into form (9).

—By Horton and Rigney, in "Scouting."



	6  6 STRATO CUMULUS <i>"TWIST" shaped clouds of dark color. Not very thick showing blue sky in spots. Does not bring rain. Height about 1 mile</i>
	7  7 NIMBUS. "UMBRELLA" <i>"OVER ALL" Rain clouds. Thick and dark. Small ragged pieces floating at low level are known as "SCUD" Holes may be seen</i>
	8  8 CUMULUS WOOL PACK <i>Huge masses of varying height. Bright opposite the sun. On same side as sun is dark with bright edges</i>
	9  9 CUMULO-NIMBUS "THUNDER" or "SHOWER" Like Cumulus but has "false Cirrus" at top and "Nimbus" underneath. These clouds come very low
	10  10 STRATUS — "SPREAD SHEET" <i>Horizontal sheet of lifted Fog. Torn apart is known as "Fracto Stratus"</i>

(2) Plants

By GEORGE T. HASTINGS

Head Science Dept., Theodore Roosevelt High School, New York City

It would be hard to overestimate the importance to Scouts of a knowledge of plants. Ranging in size from microscopic forms to giant trees—from the smallest living things to the largest,—in life span they include both those whose life is measured in hours as well as the oldest living things in the world, trees thousands of years old.



Make Human Life Possible

Plants are the food makers,—changing rocks into food for animals. The cells of green leaves and stems carry on the most important chemical process in the world,—that which makes possible human life. With the energy absorbed by the green coloring matter of the leaf (chlorophyll) from the sunlight, carbon dioxide and water are combined to form sugar and starch. This is the source of all our food. The delicate hairs on young roots absorb water from the soil, sending it up through the conducting vessels and fibres of the stems to the leaves. The leaves through their thousands of tiny mouths (stomata) take in carbon dioxide. In the green cells the carbon dioxide is broken down and the carbon unites with the hydrogen and oxygen of water to form starch. As an incident in the process plants give off as much oxygen as they take in carbon dioxide and become the great purifiers of the air. Plants furnish fibers for clothing, wood for building, medicine, oils, gums, resins, rubber and other useful products. The materials for pioneering and woodcraft, for camps and fires, food materials such as berries, nuts, edible roots, greens and mushrooms, come from plants. But plants are more than



SKUNK CABBAGE



JACK-IN-THE-PULPIT



MARSH MARIGOLD



WOOD ANEMONE



RUE ANEMONE



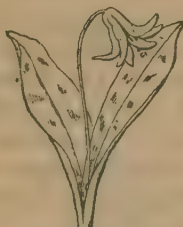
HEPATICA



WILD COLUMBINE



SPRING BEAUTY



ADDERS TONGUE



MANDRAKE



BLOODROOT



DUTCHMAN'S BREECHES

EARLY SPRING FLOWERS

food and materials—they are wondrous friends—to meet and know.

Poisonous Plants

Some plants however are poisonous. Some are poisonous to eat, as most all mushrooms are. *The U. S. Dept. of Agriculture advises all Scouts to leave mushrooms alone.* The common plants poisonous to touch are the poison ivy (also called poison oak), and poison sumach. The first is a vine of wide distribution, sometimes spread over the ground, sometimes growing like a bush, sometimes climbing over fences and rocks and up the trunks of trees. It is easily recognized by the three parted leaf, the middle leaflet being stalked. Sometimes, but not always, the leaflets are toothed on the sides. The poison sumach grows only in swamps, its grayish twigs, smooth red leaf stems, entire edged leaflets and scattered white fruits distinguish it clearly from the non-poisonous sumachs. In both, the poison is a volatile oil that produces no effect on the majority of people but causes painful inflammation of the skin with numerous small blisters on some. After touching either of these plants washing with strong soap suds or alcohol will remove the poison from the skin. This precaution should be taken even if one thinks he is immune to the poison.

The Kingdom of Plants is divided into four great groups: (1) *The Thallus Plants*, lacking true roots, stems, leaves, flowers and fruits; (2) *the Moss Plants* with stems and leaves of a very simple form but without flowers or seeds; (3) *the Fern Plants* also without seeds but with the stems and leaves more complicated; and (4) *the Seed Bearing Plants*, the highest group.

I. The Thallus Plants include, 1st, *the*



WILD SPIKENARD



CANADA MAYFLOWER



SOLOMON'S SEAL



CLINTONIA



WINTERGREEN



SPOTTED WINTERGREEN



PRINCE'S PINE



SHIN-LEAF



ONE-FLOWERED PYROLA



TWINFLOWER



PARTRIDGEBERRY



FOUR-LEAVED LOOSESTRIPE

WOODLAND FLOWERS OF LATE SPRING AND SUMMER

algae,—seaweeds, pond scums, and other forms, among them the green stain that is so often found on the trunks of trees, chiefly on the north side. *2nd, the bacteria*, man's invisible friends and foes. Our First Aid and camp sanitation is concerned largely with destroying harmful bacteria. *3rd, the fungi*,—moulds, mildews, mushrooms, puffballs and many kinds that cause diseases of plants. One of these has killed most of the chestnut trees of the East and the remainder seem doomed. The white pines are now threatened by another fungus that can be more easily controlled as it can not spread without the help of currant or gooseberry bushes. Most, if not all, of our cultivated plants have fungus enemies that must be fought if man is to survive on the earth. *4th, the lichens*,—curious grayish, yellow, brown or black plants living on wood, stone or soil. These are in reality double plants, algae and fungi living in partnership. They are the pioneers of the plant world, living on bare rocks and slowly forming soil in which other plants may find a foothold. A few are edible, as the reindeer moss of the north which is important to the musk ox and reindeer and in case of emergency may be used by man.

II. The Mosses include the liverworts, some moss-like, some small flat plates or branching ribbons of green on damp soil or rocks. The true mosses are small leafy-stemmed plants which produce spores in capsules. One of the commonest is the pigeon-wheat moss. This has slender pointed leaves growing out from erect stems so that as one looks down on it there is a suggestion of tiny stars. From the top of the stem there may grow a brown stalk perhaps two inches high on which is the oval capsule which when young is covered by a hairy cap. The largest mosses are the sphagnums or peat mosses, the most characteristic plant of bogs.



BULL THISTLE



BURDOCK



CANADA THISTLE



TANSY



TANSY



CHICORY



PURPLE CONE FLOWER



BLACK-EYED SUSAN



BLUE VERVAIN



BONESET



GOLDENROD



ASTER

SUMMER FLOWERS OF FIELDS AND ROADSIDES

III. The Ferns and their allies are also spore-bearing plants. The true ferns have on the backs of their usually dissected leaves small fruit dots, marginal, oblong or round. These are made of tiny spore cases, sometimes several hundred in each dot. The cases hold the spores and throw them out when ripe. Under suitable conditions these spores grow to make the next stage in the fern's life history. This is a heart-shaped, flat green structure rarely over a quarter of an inch across, on the under side of which grow the sperm and egg cases. If a sperm fertilizes an egg another fern plant like the original develops. With the ferns are grouped the club mosses, horsetails and quillworts, plants which have little resemblance to ferns but do have spore cases and similar life histories. Ferns were more important in past ages than now. Millions of years ago, when our coal was forming, ferns and their allies made the most important part of the earth's vegetation.

IV. Seed Producers are the highest group of plants. It includes the very important group of cone bearing plants, — pine, spruce, hemlock, cypress, redwood, etc.—which have nothing that fits the popular idea of a flower. The flowering plants are those that dominate the landscape in most parts of the country. With over 150,000 species in the world, growing in all places from water to deserts, from sea level to the tops of high mountains, they naturally assume a great variety of form. Those adapted to live in water are mostly widely distributed,—cat-tails, water lilies, pond weeds and duckweeds grow in all parts of the country and should be known to everybody. The marsh plants are largely grasses and sedges, the former with round stems, the latter often with triangular ones. Plants of the roadsides and cultivated fields vary in different parts of the



TURTLE-HEAD



WATER PARSNIP



MONKEY FLOWER



JEWEL-WEED



BLUE IRIS



ROSE MALLOW



CAT-TAIL



WATER ARUM



GOLDEN CLUB



PICKEREL-WEED



WATER LILY



YELLOW POND LILY

MARSH AND WATER FLOWERS

country but everywhere a large proportion of them are foreign, often troublesome weeds. Cactus plants from our Southwest, of interest because of their adaptations to life in the desert, have become the worst weeds of Australia. Blackberries have in a similar way become a pest in New Zealand. So ragweed, pigweed, dock, burdock, thistles and a hundred others have come to our country from abroad and added to the work of our farmers and to the cost of our food.

Flowers

Flowers of all kinds, sizes, shapes and colors are all made of four kinds of modified leaves. These are the sepals on the outside, usually green and serving to protect the bud; the petals, usually colored and serving for the attraction of insects; the stamens; slender filaments with knob-like, yellow anthers that form the pollen; and the pistils, holding the ovules that develop the seeds. Some flowers are complete with all these parts, some lack one or more. With most plants better seeds are formed if the pollen and ovule are from two different plants of the same kind,—pollen from a different kind of plant has no more effect on the pistil than so much dust. Most of the curious shapes, the bright colors, the odors of flowers are adaptations to secure insect visitors and to bring about cross pollination. It is worth while to watch insects as they visit flowers, to see what flowers are visited by each kind of insect, how they land on or enter the flower, how long they stay, and to find the beautiful adaptations that fit both insect and flower for the work.

Families

It is by the flowers that plants are classified. A little study will enable any one to learn the characters of a few of the largest families of plants and to be able to



ARBUTUS



PINK
LADY'S SLIPPER



SHOWY ORCHID



GRASS PINK



INDIAN PINK



WOOD LILY



BIRDS FOOT VIOLET



PINK AZALEA



MOUNTAIN LAUREL



FLOWERING DOGWOOD



FRINGED GENTIAN



MEADOW BEAUTY



CARDINAL FLOWER



WHITE TRILLIUM

FLOWERS NEEDING PROTECTION

have at least that much acquaintance with the majority of plants seen where ever he may be. For example—the largest family of plants, containing about one-tenth of all flowering plants, is the thistle family. Here all of the flowers are very small but many are grouped in a head with a set of small, usually green leaves around the head resembling a calyx,—the whole head seeming to be a single flower. To this family belong the asters, goldenrod, daisy and thousands of others. One can easily secure further knowledge of the flowers or other plants from such books as are listed below.

For the Botany of the Northwestern United States use:

"New Manual of Botany," 7th ed. Asa Gray.

"Illustrated Flora of the United States and Canada." N. L. Britton and Hon. Addison Brown.

For the botany of the Southern United States use:

"Flora of the Southern United States." A. W. Chapman.

"Southern Wild Flowers and Trees." Alice Lounsberry.

For the botany of the Rocky Mountain region use:

"New Manual of Botany of the Central Rocky Mountains." John M. Coulter; Revised by Aven Nelson.

"Rocky Mountain Wild Flower Studies." Burton O. Longyear.

For general information regarding the shrubby plants of the United States use:

"Ornamental Shrubs of the United States." Austin C. Apgar.

"Our Northern Shrubs." Harriet Louise Keeler.

For the wild flowers outside of those already mentioned for the Southern United States and the Rocky Mountain region use:

"Our Garden Flowers." Harriet Louise Keeler.

"How to Know the Wild Flowers." Frances Theodora Parsons.

"Field Book of American Wild Flowers." F. Schuyler Mathews.





(3)

Butterflies and Other Insects

DR. L. O. HOWARD

Chief United States Bureau of Entomology

There is an advantage in the study of insects over most other branches of nature, excepting, perhaps, plants in that there is plenty of material. You may have to tramp miles to see a certain bird or wild animal, but if you will sit down on the first patch of grass you are sure to see something going on in the insect world.



Butterflies

Nearly all insects go through several different stages. The young bird is very much like its parent, so is the young squirrel or a young snake or a young fish or a young snail; but with most of the insects the young is very different from its parents. All butterflies and moths lay eggs, and these hatch into caterpillars, which when full grown transform to what are called pupæ or chrysalids—nearly motionless objects with all of the parts soldered together under an enveloping sheath. With some of the moths, the pupæ are surrounded by silk cocoons spun by the caterpillars just before finally transform-



ing to pupæ. With all butterflies the chrysalids are naked, except with one species which occurs in Central America in which there is a common silk cocoon. With the moths, the larger part spin cocoons, but some of them, like the owlet moths whose larvæ are the cut-worms, have naked pupæ, usually under the surface of the ground. It is not difficult to study the transformations of the butterflies and moths, and it is always very interesting to feed a caterpillar until it transforms, in order to see what kind of a butterfly or moth comes out of the chrysalis.

Take the monarch butterfly, for example. This is a large, reddish-brown butterfly, a strong flier, which is



Monarch Butterfly

seen often flying about in the spring and again in the late summer and autumn. This is one of the most remarkable butterflies in America. It is found all over the United States. It is one of the strongest fliers that we know. It passes the winter in the Southern states as an adult butterfly, probably hidden away in cracks under the bark of trees or elsewhere. When spring comes the butterflies come out and begin to fly toward the north. Wherever they find the milkweed plant they stop and

lay some eggs on the leaves. The caterpillars issue from the eggs, feed on the milkweed, transform to chrysalids; then the butterflies issue and continue the northward flight, stopping to lay eggs farther north on other milkweeds. By the end of June or July some of these South-

ern butterflies have found their way north into Canada and begin the return flight southward. Along in early August they will be seen at the summer resorts in the Catskill Mountains, and by the end of October they will have traveled far down into the Southern states, where they pass the winter.

The caterpillar of the monarch or milkweed butterfly is a very striking creature. It is nearly two inches long when full grown. Its head is yellow striped with black; its body is white with narrow black and yellow cross-stripes on each segment. Its chrysalis is pale pea-green in color with golden spots.

It will be easy to watch them and to see them transform.



Locust

The same thing may be done with any one of the six hundred and fifty-two different kinds of butterflies found in the United States.

Moths

When it comes to moths, there is a much greater variety.

Instead of six hundred and fifty-two, there are fifty-nine hundred and seventy in Doctor Dyar's big catalogue. Perhaps the most interesting of these caterpillars are the big native silkworms, like those of the cecropia moth, the luna moth, the polyphemus moth, or the promethia moth. These caterpillars are very large and are to be found feeding upon the leaves of different trees, and all spin strong silken



Sphinx Moth

cocoons. The polyphemus moth is found over a



Potato Beetle

greater part of the United States, and its caterpillar feeds upon a great variety of trees and shrubs such as oak, butternut, hickory, basswood, elm, maple, birch, chestnut, sycamore, and many others. The caterpillar is light green and has raised lines of silvery white on the side. It grows to a very large size and spins a dense hard cocoon usually attached to leaves. There are two generations in the Southern states, and one in the Northern states. The moth which comes out of the cocoon has a wing spread of fully five inches. It is reddish-gray or somewhat buff in color with darker bands near the edge of the



Walking Stick



Giant Water-bug

wings, which themselves are pinkish on the outside, and with a large clear spot near the center of the fore wing and a regular eyespot (clear in part and blue in the rest) in the center of the hind wing.

One wishing to know about butterflies and moths should consult "How to Know the Butterflies," by Prof. J. H. Comstock of Cornell University. (D. Appleton & Co., of New York.) "The Butterfly Book" and "The Moth Book," by Dr. W. J. Holland of Pittsburgh. (Doubleday, Page & Co., of New York.)

Other Insects

There are many more different kinds of insects than there are of flowering plants, and if we were to add together all of the different kinds of birds, mammals, reptiles, fishes, crabs, mollusks, and all of the lower forms of animal life, they would not all together amount to so many different kinds as there are insects. This makes the classification of insects quite complicated. There are eighteen or nineteen main orders, and each one is subdivided almost indefinitely. There is not one of these that is not full of interest. The habits of ants, for example, living in communities by themselves, afford a tremendous opportunity for interesting observation.



Male



Female
Tree Crickets

A good book about them has been recently written by Dr. W. M. Wheeler of Harvard, entitled, "Ants, Their Structure, Development, and Behavior," published by the Columbia University Press, New York.



Mayfly

Many insects live in the water, and to follow their life histories in small home-made aquaria is one of the most interesting occupations one could have, and there is a lot to be learned about these insects. Go to any stagnant pool and you will find it swarming with animal life: Larvæ or "wigglers" of mosquitoes, and a number of other aquatic insects will be found feeding upon these wigglers. Water bugs of different kinds will be found and the life histories of most of these were until quite recently almost unknown.

Beetles and Wasps

The order *Coleoptera*, comprising what we know as beetles, has thousands of species, each one with its own distinctive mode of life; some of them feeding upon other insects, others boring into wood, others feeding upon flowers, others upon leaves, and so on in endless variety.



Paper Wasp

The wasps also will bear study. Here, too, there is a great variety, some of them building the paper nests known to every one, others burrowing into the surface of the ground and storing up in the burrows grasshoppers and other insects for food and their young which are grub-like in form; others still burrowing into the twigs of bushes, and others making mud nests attached to the trunks of trees or to the clapboards of houses or out-buildings.

This is just a hint at the endless variety of habits of insects. In the Merit Badge Series published by the Boy Scouts of America is included "Insect Life," at \$1.50, a Manual of over 200 pages. Besides giving information on the other Insect Life Requirements, it tells how to make a collection, how to catch and kill insects, arrange them and rear them.

The Editor has added the following material on Mosquitoes and Flies and the signed quotation on Insect Facts.

Some Insect Facts

"Insects differ from other animals in that they have six legs. Spiders and centipedes have eight or more legs and therefore are not insects. Insects usually have wings and do not grow after they have attained them. Little bees never grow into big bees.



Leaf Beetle

Some insects grow by persistent eating—filling themselves up until they experience relief as their skin splits across the neck and down the back. Out of this opening the insect creeps, leaving behind the old shell.

The grasshopper repeats that process six times at intervals of a week or so. Its last stage finds the "coat changing" fellow with his wings. * * *



Insects breathe through side body openings called spiracles. Their blood completely fills the body cavity and is kept in motion by a tube like pulsating heart open at both ends. Most insects seem to smell and some hear by means of their antennae. The fasting organs (palps) are just inside the mandibles or jaws. Some, like the butterfly, have sucking mouth parts.

—By A. R. Janson, Hollywood, Florida.

Mosquitoes and Flies

About eight days after a "good meal"! the mosquito (culex—the common, non-disease bearer) lays some 300 eggs in little rafts on the surface of, preferably still shallow water. These hatch in one to seven days sending forth a horde of larvae or "wigglers". These feed from six to twenty-one days and then pass into a pupa or resting stage of one to six days from which an adult winged mosquito emerges ready for business! The life cycle then varies from 8 to 34 days. In other words two mosquitoes under most favorable conditions could produce 27,000,000 new adult mosquitoes in 24 days! Relief—Drain standing water or oil the surface. * * *



Horsefly

The Common housefly about four days after mating seeks out a manure pile or decaying matter and lays four crops of about 120 eggs each. In 8 to 24 hours these hatch into tiny white maggots which shed their skins twice in a 5 day growing period after which they rest for 5 days as a white to dark bean shaped object from which a new fly emerges ready for life. One pair in 63 days can produce 53 billion others! Swat the fly! * * *

(4)

Fishes

By LEWIS RADCLIFFE

Deputy Commissioner, U. S. Bureau of Fisheries

A fish is a back-boned animal adapted to life in the water. Specialized organs, the gills, extract the life giving oxygen from the water. The water passes in through the mouth, bathing the gills, and then out behind the gill covers. These are usually located under the bony cheeks. Fins replace limbs and serve to hold the body of the fish in balance or enable it to move slowly or rapidly through the water. Fish have no eyelids and therefore cannot close their eyes when asleep. The crystalline lens is nearly spherical to enable the fish to see clearly in water. Fish are therefore near-sighted and cannot see objects at a distance or out of the water. The nostrils are small openings in front of the eyes leading into a little cup. They are not used in breathing but to detect the presence of things in the water. Over the fish's stomach is a closed sac, filled with air—called the air or swim bladder, which has become modified from a lung to an organ of buoyancy, helping the fish to hold its position in the water. A few fishes, like the gar fish and the bowfin still have lung-like air bladders and rise to the surface of the water to gulp air.



Perca flavescens
Yellow perch



Pomolobus asticalis
The alewife or river herring



Micropterus salmoides
Large-mouth black bass



Notropis hudsonius
Minnow or shiner



Acipenser oxyrinchus
The Atlantic sturgeon

Form.—Fishes are of almost innumerable shapes. Mackerel and pickerel are nearly cylindrical, tapering at either end. Such fishes are usually capable of great speed and offer but little resistance to the water. Makers of aircraft have obtained valuable information from the study of fishes and marine mammals. Most fishes are compressed at the sides. Flounders, skates and rays are depressed, adapted to a life at or near the bottom. Eels and some other fishes have long, slender, snake-like bodies. The ungainly ocean sunfish is nearly all head. Whenever you catch a fish study its form and seek the explanation as to where it lives, whether it is a surface swimmer, a bottom dweller; whether it is built for speed or leads a sluggish life.

Scales.—Most fishes have the body covered with scales like the shingles on a roof. Some such as the catfishes have naked bodies. In many sharks the skin is covered with shagreen, composed of a multitude of horny denticles. At one time the shagreen was used for polishing wood, ivory, etc. On the body of the sturgeons there are five rows of bony plates. The skin of the sea-horse is ossified into a hard case. Note the covering of the skin. Scales have rings of growth and winter rings. In fishes like salmon we can determine age as one does by study of the cross-section of a tree. Scales may be cleaned and mounted dry on glass slides for study under the



Esox lucius
Common pike pickerel.



Oncorhynchus tshawytscha
Chinook salmon



Coregonus clupeaformis
Common whitefish



Salvelinus fontinalis
Brook trout: speckled trout

microscope. This is a most interesting subject.



Ictalurus punctatus
The speckled catfish

Color.—The upper surface of the fish is darkhued. This makes it difficult for man, fish hawks, or other enemies to see the fish when looking down into the water. Most fishes, especially the surface swimmers, have the under surface white or light colored to conceal the fish from its enemies below where things at the surface look white. Many fishes, especially those living in the tropical gardens of the sea, are brilliantly hued. Perhaps the many hiding places among corals and sponges makes a protective coloration less necessary. Note that the upper parts of many fishes living at or near the bottom closely resembles the color of the bottom or is of a pattern which helps to conceal the fish. Boys who have gigged for flounders know how difficult it is to discover one of these fishes bedded in the sandy bottom.



Catostomus commersonii
Common sucker: white sucker

Locomotion.—Study the live fish in his home or in an aquarium. Note that the tail fin is largely depended upon to drive the fish through the water. The other fins are used chiefly to keep the fish in equilibrium or to direct his motion up, down, or to one side through the water. The pectoral fins, one on either side behind the head correspond to our arms, and the pair underneath (ventral fins) to our legs.

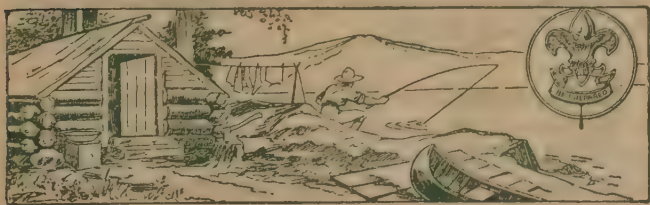
Breeding habits.—The study of the breeding habits of fishes is a most fascinating subject. Such fishes as the black basses build a nest on which are laid the eggs. One of the parents stands over the nest and with

a gentle fanning motion of the fins keeps the eggs free from sediment, the other parent stands guard to keep intruders away. Even the young fish are guarded for a time. The Pacific salmon, after growing to maturity in the sea, return to the stream of birth, deposit their eggs and die. On the other hand, the fresh-water eel leaves the sea at an early age, for a life in our lakes and streams, going down into the sea at maturity to lay its eggs and die. Many of our fishes are stay-at-homes. Boy Scouts will find it a most interesting subject to study the breeding colors of native fishes, their nesting habits and the various important incidents in the life of a fish.

As there are about 3,300 species of fishes known from the waters of North America, space in this small volume will not permit of descriptions or keys even of the more important food fishes. Furthermore, not more than one-tenth of this number will be found in any one locality, usually much fewer. Boy Scouts interested in identifying the fish they catch, should consult some good book such as *American Food and Game Fishes* by David Starr Jordan and Barton W. Evermann, published by Doubleday, Page & Co., Garden City, N. Y.

Angling.—Angling is one of the most pleasurable pastimes, a builder of health and character, available to old and young, rich and poor. The Honorable Herbert Hoover once said:

“I am for fishing for fun as a contribution to con-



structive joy because it gives an excuse and an impulse to take to the woods and to the water. Moreover, fishing has democratic values because the same privilege of joy is open to the country boy as to the city lad. And equally to his properly brought up city or farmer dad.

"There is an equality of all men before fishes. The fish has never learned to discriminate much as to the price of tackle. He takes no account of class or manners and with it all, while there are high moments of excitement and periods of great thrill, the good fisherman must yield to contemplative moods, for often it is a long time between bites.



These interregnums make for reserve and calm reflection. No one can catch fish in anger or in malice. A good fisherman must by nature be possessed of much faith and hope or he would not fish. He gains even in charity when he listens to other fishermen. All of which should create a high esteem for fish."

In angling, keep a record of the kinds of fish you catch with a particular bait; time of day, weather conditions, stage of tide and other factors and almost without knowing it you will acquire a fund of information about fishes that will surprise your fathers and big brothers.

The boy interested in acquiring skill in angling will undoubtedly find a number of good books on the subject in his local library.

Maintaining our fisheries.— Our fisheries were of the greatest importance from the earliest periods of our history, without which some of the early settlements would have perished. They still are a highly important

source of human food, recreation and products used in the arts and industries. We have not given this great natural resource the protection it merits. We continue to dump our sewage and harmful products from many industrial plants into lake, stream and enclosed coastal area until some of them are little more than open sewers, wholly uninhabitable to aquatic life. We are continually reclaiming marsh, swamp, and bayou, the home of the little fishes and their food without regard to what purpose they will best serve. We even clear out the water plants along the shores of lake or stream, the brush and snags as well. These afford protection to the little fishes and the source of much of their food and then we wonder why we don't have good fishing. Our drainage ditches, and dams add to the difficulties of keeping our streams stocked. Good roads and the more general use of the automobile have made it possible for millions of our people to go fishing and thus increased the drain on the supply. We want good fishing and we want the Boy Scouts who follow us to have good fishing as well. Therefore we must take some stock of the future.



Fundulus diaphanus
Killifish: top minnow

Catostomus commersonii
Common sucker: white sucker

Things the Boy Scouts Can Do. — The Boy Scout can help to maintain the good fishing by:

1. Returning undersized or immature fish to the waters unharmed (the hands should be moistened in handling live fish and the fish handled with care to prevent loss of scales or bruising);
2. Leaving the spawning fish unmolested on their nests thus affording protection to the brood fish;
3. Retaining only as many as will be eaten;
4. Fostering artificial propagation of fishes for stocking our waters;
5. Obeying the fishing laws and encouraging others to do the same.

The Bureau of Fisheries, Washington, D. C., will aid in identification of species.

(5) The Conservation of Wild Life and Forests

DR. E. W. NELSON

Chief, Biological Survey, U. S. Dept. of Agriculture

With the growth of towns and the more intensive occupation of the fields and forests by man, both our wild animal and plant life which beautify the world have a more and more difficult existence.



The early settlers in the eastern United States found the country covered everywhere with forests in which there was an abundance of wild life, including deer, elk and buffalo, the bears, wild turkeys and grouse, and many kinds of small game. The forest was regarded as an obstruction in the path of progress and was cut and burned as rapidly as possible to make way for cultivated crops. With the destruction of most of the forest and over-hunting much of the wild life disappeared, or has been forced back into the mountain areas. The havoc wrought has been largely due to a lack of appreciation of the recreational and even economic value of wild animal and of plant life, difficult to appraise, but none the less real. Enlightened public sentiment is now, however, demanding that such natural resources be conserved and increased for the benefit of our own succeeding generations.

The problem of maintaining an abundance of game is beset with difficulties, owing to the ever increasing army of hunters. Through the use of automobiles over new roads remote wilderness sections are now easily and quickly penetrated, and the



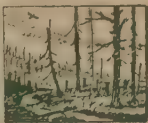
game is placed at a new disadvantage. Hunting is one of the finest of sports, but requires strict regulation to the end that the game will not unduly be decreased. Some sections in which such game as deer, bears and wild turkeys had become extinct have been restocked with the most gratifying results, and are indications of what may be accomplished on a wider scale.

Organized Conservation

Federal laws now prohibit the killing of all birds migrating between Canada and the United States, except under regulations by the Secretary of Agriculture that in the main provide for the shooting of migratory game birds during such seasons and under such conditions

as will afford them suitable protection. State laws for the protection of wild life are steadily being improved. The National Conference on Outdoor Recreation, the National Association of Audubon Societies, the Izaak Walton League of America, the American Game Protective Association, the Wild Flower Preservation Society, and many other organizations are banded together and in cooperation with the Federal and State Governments are making earnest efforts to conserve our wild life. Only by wise forethought and careful guardianship may we hope to continue to enjoy the beauties of nature and the health-giving life in field and forest surrounded by the wild things that give them such an interest and charm.

Among the Boy Scouts we may expect to find that appreciation of the need of the guardianship of the animal and plant life of the out-of-doors as a part of that fine sense of responsibility that



is included in their training. By exercising a restraining influence against unnecessary destruction of wild things and preventing forest fires, they engage in the most practical and useful kind of conservation work. In doing his daily "Good Turn" it will be admirably helpful if he includes something to promote the conservation of wild life and forests.



What a Scout May Do for Wild Life and Forests

He should maintain his self-respect and become an example to others by strictly observing all laws and regulations for the protection of game, game birds and fishes, and refrain from the wanton destruction of harmless wild life in general. Violations of conservation laws that come to his attention should be reported to the proper officers.

He should use scrupulous care in preventing forest fires that not only destroy the timber but the wild life it feeds and shelters. Put out any running fires in timber or report them to the owner or proper public officer. Be careful with matches and leave no camp fires burning.

He should not break down flowering trees or pick the flowers and plants that have become rare and are threatened with extinction, or wantonly destroy plants that are useful or harmless.

His general attitude toward wild animal life and plant life should be sympathetic and such as to influence others in their conservation. As one means of doing this, **he should join or cooperate with organizations** having for their object the protection of wild animal and plant life.

If suitably located and properly qualified, the Scout over 18 years old may contribute materially to our knowledge of the migration of birds by the banding method. For details he may write to the Biological Survey, U. S. Department of Agriculture, Washington, D. C.

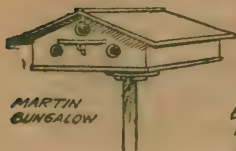
Bird Houses Every Scout Can Build



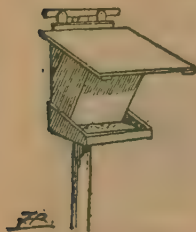
FOOD SHELTER.
Open underneath.
Sides of glass.
Food receptacle
in centre.



SUET HOLDERS



MARTIN
BUNGALOW



AUTOMATIC FEEDER



Berlepsch
Nest log



Wooden House

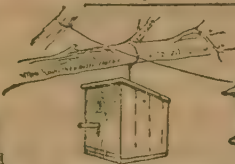


Metal Hut



Huttet

WREN, or CHICKADEE HOUSES.



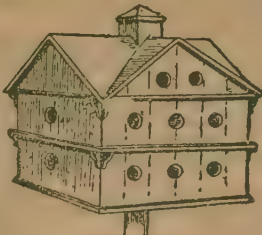
BLUE BIRD HOUSE.



FEEDING CAR



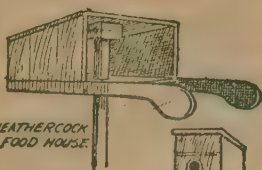
BERLEPSCH.
NEST LOG FOR
WOOD DUCK AND OWLS



MARTIN HOUSE



WOODPECKER
HUT



WEATHERCOCK
FOOD HOUSE



BLUEBIRD
HOUSE

Bird houses. Drawn from the originals in the New York Zoological Park

Gold Honor Badge for Wild Life Protection

TO ALL SCOUTS:

The Gold Honor Badge of the Permanent Wild Life Protection Fund, which is usually referred to as a "medal" may be won by exceptional services continuing throughout one year or more. Scouts who work for this honor badge are informed that in considering services that have been rendered, the actual results that have been accomplished count heavily.



The exercise of good judgment is necessary in deciding what kind of service will be valuable to wild life.

Valuable services to wild life may be rendered in the following ways:

1. By actively supporting laws and law officers for the protection of birds, quadrupeds, and fishes. Report immediately to game wardens or policemen all violations of wild life protective laws, make formal complaints against violators, and give testimony at the trials. In this every father or big brother should back up the Scouts.
2. By securing the support of members of legislatures and Congress, for bills intended to enact better protective laws. Boy Scouts can wield immense influence in this direction if they will! Combined effort is the key to success.
3. By securing the support of schools, or forming clubs, for the protection and increase of wild life.
4. By preventing, or punishing, nest robbing and songbird killing by boys who have not been taught to protect wild life.
5. By addressing schools in behalf of wild life protection, and writing school essays on the rights of birds, the value of birds to man, the duty of boys to protect them, and the methods to be adopted.
6. By securing five-year closed seasons for species of birds or quadrupeds that are locally becoming extinct.
7. By encouraging farmers to "post" their farms against all shooting.
8. By helping post notices of new protective laws.
9. By establishing bird sanctuaries.

In 1920, the real Gold Medal for "Distinguished Services to Wild Life" was awarded to a boy, Lenhardt E. Bauer, of Indiana, who by an astonishing amount of work brought about the creation of 266 private wild life sanctuaries. This was done by convincing the owners of farms and other lands that it was their duty to protect all the wild life upon them, and by securing their written pledges to so dedicate their land. Work for the protection of wild life and not merely to win a gold badge. The cause is The Thing to Work For!

WILLIAM T. HORNADAY.

(6) Reptiles

By DR. G. KINGSLEY NOBLE

Curator of Reptiles, American Museum of Natural History

Reptiles include crocodiles, turtles, lizards, and snakes. Reptiles may be distinguished from other back-boned creatures by their dry scaly skin. A few of them, such as the soft-shell turtles and some gecko lizards, have lost the scales, but all others have them present.

ANCIENT REPTILES

Reptiles have an ancient and honorable history behind them. They date back, as fossils, almost to the Carboniferous time, that is, to the age when coal was formed from the detritus of trees and other vegetation. Dinosaurs and many other monsters of those days belonged to the reptile group. Then reptiles dominated the world.

MODERN REPTILES

Modern reptiles are a mere remnant of those ancient forms. Three of the four groups living today have existed from nearly the earliest times. One group, the



**TYRANNOSAURUS
and TRICERATOPS**

GIANT REPTILES OF THE PAST



FORERUNNER OF OUR BIRDS

snakes, are not so ancient. In fact, snakes are merely legless lizards, which early specialized in wriggling and got along very well without these appendages.

The Crocodilians.

There are only two crocodilians in the United States: the crocodile and the alligator. The latter are still fairly abundant in the south. The crocodile is very rare and is found only in the southern tip of Florida and possibly in Texas. The crocodile has a long, rather narrow pointed head. In the alligator it is broader and rounded at the snout.

Turtles

The turtles are very numerous all over the United States. Sea turtles are unique in having flippers. Soft-shell turtles are species with a soft leathery skin over their shell. Turtles are really primitive reptiles which are walking inside of their ribs; that is, the ribs after being strengthened by additional bony plates have managed to slip outside of the shoulder and thigh girdles to form the bony box or shell.



BOX TURTLE

In eastern United States the common species include the musk and mud turtles, snapping turtles, the wood turtles, the box turtles, and the various pond turtles, the painted turtles with their bright red spots on the lower

margin of the shell and the spotted turtle with its small yellow spots all over the top of the shell. In the west are found box turtles, mud turtles, and a number of river species.

Lizards

The lizards in the United States are mostly terrestrial, except a few, such as the Florida "chameleon" which is found in trees. There are four principal families of lizards in the United States. By far the most abundant are the Iguanidae, which includes the "chameleon," the "horned toad," and the chuckwallas. The fence lizard, *Sceloporus*, is represented by many species. They have rough, pointed scales, blunt heads, and are more arboreal than most of the following species. On the deserts of our southwest there are many iguanid lizards. Perhaps the most abundant are the collared lizards, *Crotaphytus*, and the Gridiron-tailed lizard, *Callisaurus*. The latter are to be distinguished by the bright bars on their tails. The swift-running lizards with pointed snouts, abundant in the southwest, belong to a different family, the Teiidae. They are called the Swifts. The third family of both eastern and western United States is the Scincidae. They are smooth scaled lizards, often very shiny in appearance. One of the most abundant lizards in eastern United States is the Blue Tailed Skink. This species has a bright blue tail when it is young, but as it grows older its tail grows brown and its head redder. The fourth family which we shall mention here includes the Gila Monsters. The American Gila Monster is bright salmon and black. It lives only in the deserts of the southwest and cannot be confused with any other species. The Gila Monster is the only poisonous lizard in the



HORNED TOAD

world. All others can be handled without danger. They make delightful pets if properly fed with insects and given sufficient water and sunlight.

Most Scouts would think they needed no introduction to a snake. There are a few lizards, however, which resemble the snakes in having lost their limbs. The best known in America is the "Grass Snake" of our southeast. This creature differs from all snakes in having ear openings and in being able to break off its tail when roughly handled.

The Snake Families

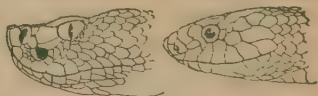


Copperhead

The snakes of North America are divided into five great families: the Blind Snakes, the Boas, the Colubrids, the Coral Snakes, and the Vipers. The first three families are harmless—so far as the American forms are concerned—while the latter two are dangerous to man. It is not difficult to distinguish the poisonous from the non-poisonous species,

Harmless Snakes

The vast majority of the snakes encountered by Scouts are harmless and most belong to the family Colubridae. The **Garter and the Ribbon Snakes** are readily distinguished by their conspicuous yellowish or greenish stripes. They feed on frogs, toads, fishes, and other creatures they can catch. The young are born alive, sometimes more than fifty at a time. The Garter Snakes are related to the Water Snakes which are



POISONOUS **NONPOISONOUS**

JANSON (from Stejneger & Barbour)

usually darker and larger than the former. There are more than a dozen species of Water-Snakes in America, but all have very much the same habits. They frequent the edges of streams and feed on frogs and fishes. As in the case of the Garter Snakes, the young are born alive. Both groups of snakes are equipped with evil smelling glands and hence do not make as good pets as the following.

The Racers include a group of powerful, and frequently slender snakes capable of moving at great speed. The common Racer in the east is the **Black Snake**, a useful ally of the farmer, for it destroys many rats and mice. The Black Snake is commonly confused with the Pilot Black Snake. The latter is a sluggish tree climber of an entirely different group. It feeds on both birds and rodents and is frequently found in mountainous regions where it is called the Mountain Black Snake. In the west the Black Snake is replaced by the **Blue Racer**, a slenderer and smaller species. In the south is the well known Coachwhip, the fiercest in captivity and the speediest of all the Racers.

The Bull Snakes are the most docile and gentle of all the large snakes in this country. They frequently attain a large size. They receive their name from their habit of hissing loudly when annoyed.

King Snakes, so called because of their cannibalistic habit of feeding on other snakes, are widely distributed over the United States. Their strong bodies are adapted to semi-burrowing habits. Some, such as the Milk Snake, feed almost exclusively upon rodents and are, therefore, of great service to the farmer.

Hog-nose Snakes are great bluffers. They are sometimes called Puffing Adders because of their habit of hissing loudly when disturbed. Frequently a Hog-nose Snake will feign a spell of convulsions and

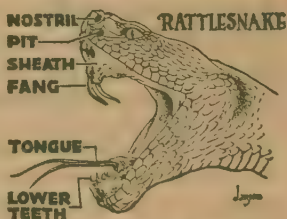
turn over on his back as if dead. If the creature is turned right side up it will defeat its own purpose by promptly turning its under side up again. The eastern Hog-nose Snake feeds largely on toads.



Poisonous Snakes

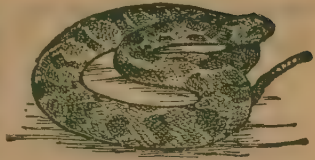
Every Scout should be able to recognize at a glance any poisonous snake in America, except possibly the **Coral Snake**. The latter is a small species ringed with broad bands of red, yellow, and black. A few harmless snakes "mimic" the Coral in color. They are harmless, but it would be wise to leave alone, every snake gaudily ringed with red, yellow, and black, for the **Coral is the most poisonous of all American snakes**.

The other poisonous species all belong to the Viperidae and are at once distinguished from harmless varieties by their four "nostrils" (see sketch), the two posterior pairs, called facial pits, seem to be hearing organs, although they look externally like nostrils. The American viperids all are "Pit Vipers." There are two groups of these "Pit Vipers," those which possess and those which lack a rattle. The first are the Rattlesnakes of which there are a number of species in America. The second includes the Copperhead and the Water Moccasin.



The **Copperhead** and **Timber Rattler** are the only two poisonous snakes in the northeast. The Copperhead derives its name from its reddish brown color which is brightest on the head. The back is marked with about fifteen "hourglass"-shaped marks of dark

brown. Copperheads are sometimes confused with Water Snakes. The head is more angular than in the latter species and the facial pit distinguishes it at once.

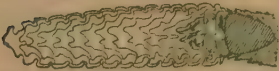


Rattlesnake

The Water Moccasin is the commonest poisonous snake in the southeast. It is a southern snake. All "Moccasins" of northeastern United States are harmless Water Snakes. It resembles the Copperhead closely, but is much darker and often larger. Further, its upper lips are yellowish and a dark band runs from the eye to the corners of the mouth. The Water Moccasin is frequently called the "Cotton Mouth" because of its habit of opening its mouth widely when approached, exposing the puffy white membranes lining its mouth.

REPTILE STUDY

The study of reptiles is not only interesting but it may be of considerable scientific importance if seriously pursued, for much less is known of these creatures than most other backboned animals. Where do the turtles, lizards, and snakes of your region lay their eggs? How long is it be-



RATTLES

fore these eggs hatch? Do the parents remain near the eggs? What will the young snakes eat? Where do they hibernate in the fall? It is such questions as these which Scouts who observe may answer.

A list of all the reptiles known from your region should be made at the beginning of the study, for it is important to know what species you may expect to find. **No Scout should pick up a snake of uncertain**

identity and under no circumstances should he handle a poisonous species.

SNAKE STORIES

Snakes are perhaps the most misrepresented of all living creatures, for most people will believe anything they hear concerning them. Scouts will perform a great service if they will endeavor to correct some of the prevailing misconceptions that have been handed down from generation to generation.

Neither the Milk Snake nor any other species can suckle milk from cows. There is no snake which can roll about in the form of a hoop. No species anywhere in the world has a "stinger" in his tail. Snakes cannot "charm" birds or any other creatures, nor do they swallow their young for protection. The snake's tongue—the forked structure that protrudes from the mouth—is not a fang. A fang is an elongated tooth found only in poisonous species. Snakes die whenever they are sufficiently injured and they do not wait for sundown, although they may wiggle a long time after they are badly damaged. If one is cut in two the pieces are not able to grow together again. Snakes are not slimy but dry to the touch and they never chase people. A triangular head does not characterize the poisonous species. The Spreading Adder, for example, is one of the most gentle and harmless of snakes. Poisonous Adders are found only in Africa.

Information in regard to reptiles may be obtained from your nearest Museum or from The American Museum of Natural History, New York City. The following books will be found of general use:

- John Van Denburgh—The Reptiles of Western North America. California Academy of Sciences, San Francisco, California.
H. S. Pratt—A Manual of Land and Fresh Water Vertebrate Animals of the United States (Exclusive of Birds). P. Blakiston's Son & Co., Philadelphia.
Raymond L. Ditmars—The Reptile Book. Doubleday, Page & Company, New York.
J. E. Guthrie—The Snakes of Iowa. Bulletin 239, Agric. Exp. Station, Ames, Iowa, Iowa State College.

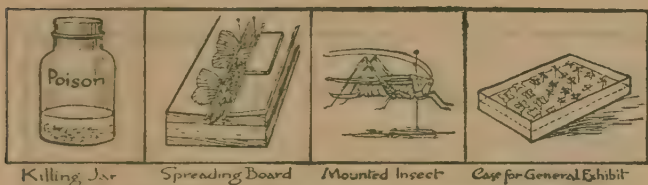
(7) Natural History Collections

By "UNCLE BENNIE" HYDE

Scouts!

What collections or exhibits of Natural History material are there in your community, in school, museum, library or private collection?

What uses are Scouts making of these and are you helping with new material?



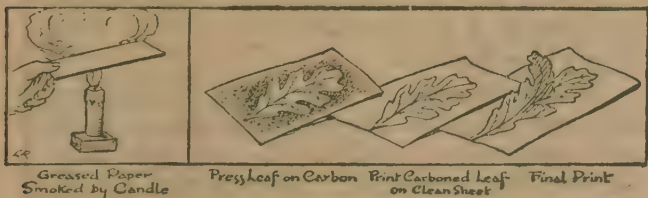
Killing Jar

Spreading Board

Mounted Insect

Case for General Exhibit

Valuable collections of insects can be accumulated to include insect enemies like the Japanese Beetle, the Corn Borer, the Boll Weevil, the Gypsy Moth, etc.; also samples of various weeds and woods and bark and twigs. The leaves of various plants can be printed with carbon.



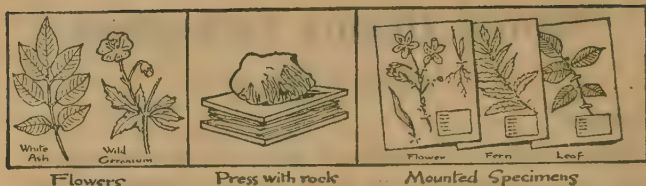
Greased Paper
Smoked by Candle

Press leaf on Carbon

Print Carboned Leaf
on Clean Sheet

Final Print

Also collections of various kinds of rocks, different varieties of shells; collections of seeds, pressed specimens of flowers—all these are possibilities: grasses, mosses, lichens and fungi can be easily collected. Nature photography is also a rich field for fun and knowledge. Animal tracks can be sketched or made in plaster of paris.



Outdoor collections can be developed by neatly labeling each tree with its names and native country for example.

THIS IS THE LAW

Live Cleanly.

Eat Wisely.

Sleep Adequately.

Exercise Regularly.

Study Methodically.

Save Systematically.

Invest Judiciously.

So—and only so—may you attain health, wealth and wisdom, if you have them not; or retain them if you have them now.

No exceptions can, or will, occur. No half-way measures will suffice. No intentions, however good, will compensate. None but those who obey these dictates may live—happily. The rest must fail, in one way or another.

Inexorable, harsh, unyielding, cruel, perhaps, but nevertheless:

It is the law!

—The Magazine of Wall Street.

CHAPTER II.

Healthcraft

GEORGE J. FISHER, M.D.

*Former Secretary, Physical Department International Committee
Young Men's Christian Association, now Deputy Chief Scout
Executive, Boy Scouts of America*

Fitness

In the Scout Oath the Scout declares that he will keep himself "physically strong." Health is a most essential thing. A strong body is a boy's first great need. To be physically fit enables him more readily to become mentally alert and aids him in his fight to be morally straight. It is the base of the triangle; it is the key stone in the arch of the Scout Oath. Every Scout should seek through wise means to become physically strong. This does not mean developing big muscles but tough muscles, muscles that respond quickly to the will, that are under command, that obey orders. They make a boy graceful, trim, alert. They help him to achieve, to win out, to endure.

The Scout Motto means Be Prepared in health as in all other things. What use will your woodcraft be if you can't hike a mile without getting tired? What fun is camp if you are so frail that you sneeze every time the wind blows? How can you give the leadership and the help that people expect from a Scout, if you have to think first of all about your own weak and delicate body? Square your life with the Scout Motto. Start now to develop a healthy body, so that you yourself may get the greatest joy and happiness out of life, as well as help others like a Scout.

This is clearly the Scout's personal responsibility. Parents, teachers, doctors may help, but it is what the Scout accomplishes for himself that will really count. Scouts do not have things done for them—they *do* them.

In these pages following you will find some rules of good health and some suggestions for improving your physical condition. Read them carefully, and start in now to make yourself physically fit.

Two things greatly affect the conditions under which a boy lives in these days. One is that he lives indoors for the greater part of the time, and the other is that he must attend school, which is pretty largely a matter of sitting still. Two things, therefore, are needs of every boy: outdoor experience and physical activity.

To secure endurance, physical power, physical courage, and skill, the first thing needful is to take stock of one's physical make-up. The Scout should learn what, if any, physical defects he has, and how to correct them. This information can only be secured by a physical examination from a thoroughly competent person. Then he should put the body in the best possible condition for doing its work and then keep it in good order.

Proper Carriage

"Walk with head up and chest raised" is a good slogan for a Boy Scout who desires an erect figure. One can scarcely think of a round-shouldered Scout. Yet there are such among the boys who desire to be Scouts.

There is no particular exercise that a boy can take to cure round shoulders. The thing to remember is that all exercise that is taken should be done in the erect position; then the muscles will hold the body there.

An erect body means a deeper chest, room for the important organs to work, and thus affords them the best chance to act.

A few setting-up exercises each day in the erect posi-



tion before breakfast will help greatly to get this result. Practice these not only in the Scout Camp, where they are part of the day's program, but every day at home, as a Daily Good Turn to yourself.

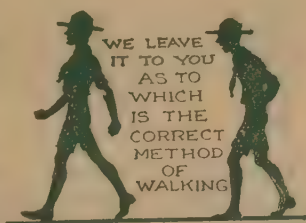
Growth

The chief business of a boy is to grow. He may have other affairs, but this is his chief concern, because only if he grows and makes the most of all his bodily powers can he hope to get the most benefit out of Scouting and give the most service to others. Hikes, camps, outdoor activities, these help to make the Scout physically strong, but the Scout cannot enjoy them to the utmost until he is physically fit. Life-saving, first aid, fire prevention, helping the police, taking a tree survey for the Park, or making a health census for the City—every Scout wants to take part in these fine Good Turns. He does not want to be handicapped in his service by weakness. He wants a body so healthy that he does not think about it. He should, therefore, have a few simple rules for living and make them a part of his daily life.

Outdoor Exercises

Each day should have its outdoor exercise. Walking is a splendid form of exercise. Don't wait till your Troop goes on a hike to take this exercise. Walk to school or business; don't ride unless absolutely necessary because

of unusual distance. Walk with a good, swinging stride with chest well up and spine fairly straight. Slow running across country is great; it lacks strain and yet affords splendid stimulation to heart and lungs. Cross-country running and hiking should be favorite sports for



**EXERCISE 1**

Position: Heels together, arms down and at sides, palms in.

Movement: Swing arms side-ways, upward to vertical, and return.

**EXERCISE 2**

Same as Exercise 1, except that arms are swung forward, upward to vertical.

**EXERCISE 3**

Position: Arms at vertical.

Movement: Arm circles downward, inward, across chest. Reverse the movement.

Breathe deeply. Stand straight.

Do these exercises with windows wide open or outdoors.

**EXERCISE 4**

Position: Forearms flexed at side of chest.

Movement: Thrust arms forward and return.

**EXERCISE 5**

Position: Arms at front, horizontal, forearms, flexed, fingers on shoulders.

Movement: Swing backward to side, horizontal in position.

**EXERCISE 6**

Position: Arms extended to side horizontal.

Movement: Swing forward and return.

(Emphasis upon backward movement.)

**EXERCISE 7**

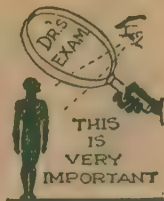
Position: Arms at side, horizontal, back slightly arched.

Movement: Circle arms backward.

Scout Patrols and Troops. A boy ought to have at least two hours of sport daily in some good, vigorous game, such as baseball or tennis, and, if he can possibly afford it, at least two periods a week, of an hour each, in a gymnasium, where he can receive guidance in body building. Boys under sixteen should avoid exercise of strain, such as weight lifting, or sprint running over one hundred yards, or long-distance racing. They should have careful guidance in all gymnastic work. Work on apparatus may prove harmful unless of the right sort. The horse and parallel bars should be used largely to jump over rather than perform upon. Exercises demanding a sustained support of the body with the arms are not helpful, but may be harmful. The chief activity should be of the legs, to strengthen heart and lungs. A boy should be careful not to overdo. In his excitement to win in a contest he is likely to do this unless cautioned. A boy should never try to reduce his weight. Now that there are weight classes in sports for boys there is a temptation to do this and it may prove very serious. Severe training for athletics should be avoided. Boys at this age should not play vigorous indoor games like basket ball for longer than two ten-minute halves, and should not play at all where the air is foul. All training should be in moderation. If you are a Patrol Leader, watch your Scouts in this regard. If you are a Scout, watch yourself.

Physical Examinations

Every boy ought to have, as he takes up his Boy Scout work, a thorough physical examination. Some physician who is interested in boys will be willing to act as examiner for a Patrol or Troop and make an examination once or twice a year on the Scout's progress. A boy should know the condition of his heart and lungs before entering any con-



**EXERCISE 8**

Position: Arms at vertical, thumbs locked, head fixed between arms.

Movement: Bend forward as far as possible, without bending knees, and return.

**EXERCISE 9**

Position: Hands on the hips.

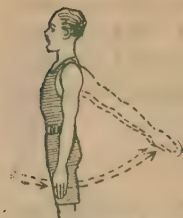
Movement: Bend forward as in illustration. Head up.

**EXERCISE 10**

Position: Hands on the hips.

Movement: Side-ward bend, right and left.

Breathe deeply all the time.

**EXERCISE 11**

Position: Same as Exercise 6.

Movement: Swing downward, forward, bringing arms beyond sides of body. Rise on toes with end of backward swing.

**EXERCISE 12**

Position: Same as Exercise 10.

Movement: Rotate body at waist. Study illustrations.

**EXERCISE 13**

Position: Same as Exercise 10.

Movement: Raise high on toes.

(Hold shoulders back firmly.)

**EXERCISE 14**

Position: Same as Exercise 10.

Movement: Full knee bend.

Breathe deeply.

test. If he has any defects in his breathing apparatus—nose, throat, or lungs, these should be attended to or they will seriously interfere with his endurance tests.

Baths

Besides exercises a boy should have simple, workable rules for living. A boy ought to take a good soap bath at least twice a week and always after he has played a hard game or performed work of a nature that has caused him to perspire freely.

Each morning a quick sponge bath, immediately after the setting-up exercises, should be the first order of the day, in water as cool as he can stand it, followed by a good rub with a coarse towel. If there is a feeling of warmth after the bath, it is helpful, if not, the water should be slightly warm, or only a portion of the body should be bathed at a time.

Pain

One thing that should be regarded seriously is pain in any form in any part of the body. If there is a dull headache frequently, find out what causes it. Pain in the knee, the arch of the foot, or at any point, should be taken seriously. Pain means something wrong. It may be brave to bear it, but it is not wise. It may mean something serious. Remember that pain felt in one part of the body may be the result of something wrong in another part. See a wise doctor about it.

Eating

And now in reference to what one shall eat. The average boy ought to have and usually does have an appetite like an ostrich. Three points to remember are: don't eat too much, most healthy boys do; don't eat meat more than once a day;



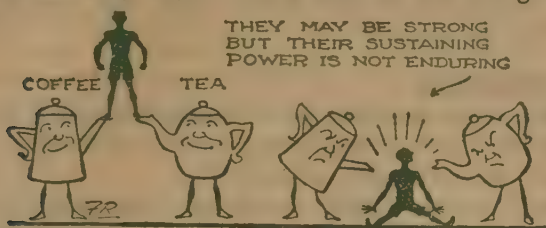
and, third, don't eat anything that you always taste for several hours after you have eaten it, even though you like it.

The fact that you taste it is an indication that your stomach is having a wrestling match with the food. Some people can't digest onions, others thrive upon them. Some can't eat cucumbers, others can do so readily. The one must give them up; the other can continue to eat them. Each person has some peculiarity of diet, and must observe it to be happy. Many a race has been lost through failure to obey this rule. A simple diet is best. Most boys eat too much of a mixed nature. They mix pickles, soda water, frankfurters, and chocolate without fear or favor. No wonder there is so much stomach ache. In boys' camps the chief trouble is indigestion caused by this riot of eating. Such boys are laying up for themselves for the future some beautiful headaches and bilious attacks, which when they become chronic later, will cry out against them and seriously impair their value. Don't eat when very tired; lie down awhile and get rested. Don't eat heavily before exercising, or, better, put it the other way around, don't exercise immediately after eating. Never eat when excited or angry, and very lightly when worried or when expecting to study hard. We should learn to eat slowly and chew the food thoroughly, remembering that all food before it can be taken up in the blood must be as thin as pea soup. Chewing well will help digestive organs greatly. Always wash the hands before eating. Be careful about eating food that has been exposed to the dust unless it has been washed. Drink freely of clean water between meals. Never use a public drinking cup without thoroughly rinsing it. Don't touch your lips to the rim of the cup.

Boys who cook their own meals when in camp should be careful to have their food well done. Half-baked and soggy food proves indigestible.

Coffee and Tea

Should a boy drink coffee or tea? This is a question often asked by boys. Coffee and tea are the greatest



stimulants known. But does a strong boy need a stimulant? What is a stimulant and what does it do? A stimulant is a whip, making the body do more at a given time than it ordinarily would. It doesn't add any fibre to the tissues, doesn't add any strength, isn't a food, but merely gets more out of the tissues or nervous system than they would ordinarily yield. Of course there is a reaction, because the tissues have had nothing to feed on. Herbert Fisher says that Peary's men, who drank lots of tea on their voyage north, during the most trying time of their trip, showed it in their haggard faces and loss of tissue. Their own tissues had turned cannibal and fed on their own material. Stimulants are not foods. They add no strength to the body. They exact of the body what ought not to be exacted of it. There is always a reaction and one is always worse off as a result. Growing boys especially should have nothing to do with tea, coffee, or any stimulant.

Alcohol and Tobacco



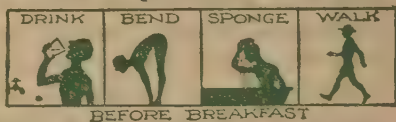
Alcohol is not a stimulant, but is really a narcotic that is very depres-

sing. It dulls rather than stimulates. The same is true of nicotine in tobacco. No growing boy should use either. The first athletes to drop out of a race are usually drinkers, and all trainers know that smoking is bad for the wind.

Constipation

Those boys who find their digestion sluggish and are troubled with constipation may find the following plan helpful in overcoming the condition:

Drink a cool, copious draught of water upon arising. Then take some body-bending exercises. Follow this with the sponge bath. Then, if possible, take a walk around the block before breakfast. After school play some favorite game for at



least an hour. In the absence of this, take a good hike of three or four miles or a longer bicycle ride. At least twice a week, if possible, enter a gymnasium class and make special emphasis of body-bending exercises.

Have a regular time for going to stool. A good plan is to go just before retiring and immediately upon arising. Go even though you feel no desire to do so. A regular habit may be established by this method. Always respond quickly to any call of nature. Toasted bread and graham bread and the coarser foods and fruit will be found helpful.

The Teeth

Closely related to the matter of eating is the proper care of the teeth.

Perhaps—without care—the mouth is the filthiest cavity of the body. We spend a great deal of energy trying to keep food clean and water pure, but what is the use if we place them in a



dirty cavity as they enter the body? Full 90 per cent. of the children examined in our schools have decayed and dirty teeth.

These decayed teeth provide cavities in which food particles decay and germs grow, and through which poisons are absorbed. These conditions need not exist. Now just a few suggestions about the care of the teeth. Every boy should own his own tooth brush. The teeth should be scrubbed at least twice a day. At night they should receive most careful cleansing, using a good tooth paste or powder. Then again in the morning they should be rinsed, at which time simply clean water is sufficient. Time should be taken in the cleansing of the teeth. The gums should be included in the scrubbing, as this acts as a good stimulant to the circulation of the blood to the teeth. Not only should the teeth be brushed with a backward and forward stroke, as we ordinarily do, but also upward and downward the length of the teeth. In addition to the scrubbing, particles of food which are lodged between the teeth should be removed after meals, or at least after the last meal of the day. This is most safely done by the use of a thread of a fair degree of thickness. Dentists and druggists furnish this thread in spools. Hard toothpicks often cause bleeding and detach fillings. A dentist should be visited once every six months so as to detect decay immediately. Never have a tooth drawn unless absolutely necessary.

Care of the Eyes

Most troubles with the eyes come from eye strain. Sties and red lids are usually due to this cause. See how foolish, therefore, it is to treat these conditions as causes, when really they are only the result of something else. Of course there are exceptions. Sometimes wild hairs and skin disease affect the eyes. Eye strain should be removed by wearing well-fitting glasses and

then these other conditions will disappear. If constant headache is experienced or the eyes itch or become tired easily, there is possibly eye strain.

One way to test the eye is for vision. If you cannot read the first line at 20 feet, the second line at 15 feet, and the third line at 10 feet clearly with both eyes and with each eye separately, consult a first-class specialist of the eye.

C L V F O T

E A C F D L O T

D V C L A E O T F

Never buy eye-glasses unless fitted by an expert. Such glasses should be worn in proper relation to the eyes. They should not be permitted to slide forward on the nose or tilt. They may need to be changed often as the eyes grow better.

For reading, a good, steady light is needed. Never sit in front of a window facing it to read. Always have the light come from the rear and over the left shoulder preferably. The book should be held on a level with the face and not too close. Sit erect. Reading when lying down or from the light of a fireplace is unwise.

Care of the Ears

Affections of the ears are exceedingly serious and may lead to grave results. Any trouble with them should be given very prompt attention and a good specialist consulted. Pain in the ear, or ringing or hissing sounds, and particularly any discharge from the ear, should not be neglected. Any sign of deafness must be heeded. Sometimes deafness occurs in reference to some particular sounds while hearing is normal to others. No matter what the degree of deafness may be, do not neglect to see a physician about it. Ordinarily the tick of a watch can be heard at a distance of thirty inches. If you cannot hear it at that distance and can hear it, say at fifteen inches then you are just one half from the normal in your hearing. The test should be made with one ear closed.

Ear troubles are often caused by sticking foreign objects in the ear, such as hair pins, pins, matches, tooth-picks, and lead pencils. Never pick the ear with anything. Often the ear drum is pierced in this way. The normal ear does not require anything more than the usual cleansing with the wash rag over the end of the finger.

If wax to any extent accumulates in the ear it should be removed by syringing, but ought to be done by a physician.

In camp an insect might crawl into the ear and if alive cause pain. Putting oil or other fluids in the ear to drown it is unwise. If a foreign body should get in the ear it should not cause great alarm unless attended with severe pain. If a physician is not available at once such objects may remain for a day or two without serious results. Syringing usually removes them, but it should be remembered that some objects like peas or beans swell if made wet. In swimming, water is apt to get into the ear and cause annoyance. A rubber ear stop can be

secured and placed in the ear at the time of swimming, thus keeping the water out. Cotton should not be stuffed into the ear to keep water out, as the cotton may get inside.

One thing to keep in mind is that catarrh of the nose and throat often extends into the ear passages through a tube which reaches from the throat to the ear and that syringing of the nose and throat frequently causes trouble in the ear.

Care of the Nose and Throat

Always breathe through the nose. Air passing through the nose is warmed and moistened and cleansed; thus it gets to the lungs in a better condition. If you cannot breathe clearly through the nose, have it examined. There may be a growth present which needs to be removed. To become a good runner this is important. Adenoids, which are growths far back in the mouth, often interfere with nose breathing and are serious in other ways. Don't stick anything in the nose; and nose picking is not cleanly. If crusts form in the nose, use a little vaseline to soften them. Don't blow the nose too vigorously. It may cause trouble.

Frequent sore throat may be due to enlarged tonsils which either need treatment or removal. To one who has frequent colds in the head, the out-of-door life and morning sponge bath and moderate eating will be of help.

Care of the Feet

This is an important matter with Scouts, as they will make frequent hikes and tramps. The first thing to do is to walk right. The straight foot is the normal foot. The normal foot is broad at the ball with space between the toes. How different from the awful feet we see with toes twisted upon each other and crowded together. Walk with feet pointing straight forward. The feet that

turn outward are weak feet. Shoes therefore should be straight on the inner border, broad across the ball, and have a low, broad heel.

When a foot is normal, the inner border does not touch the floor. By wetting the foot one can see readily whether he is flat-footed by the imprint made. The following exercises are good to strengthen the arches of the foot if there is a tendency to flat feet: (1) Turn toes in,



CORRECT & FLAT
IMPRESSION

CORRECTIVE
EXERCISE



COME DOWN ON OUTER
EDGES

raise the heels, and come down slowly on the outer borders of the feet; (2) Walk with heels raised and toes pointing inward, or walk on the outer

borders of the foot, inner borders turned up.

Shoes should fit the feet comfortably. Tight shoes, or shoes that fit loosely, will cause callouses or corns. The way to get rid of these is to remove the cause—namely, the badly fitting shoes. Soft corns are due to pressure between the toes. The toes in such cases should be kept apart with cotton. Pointed shoes should be avoided. Patent-leather shoes are non-porous and hot. Ingrown toe nails are exceedingly painful. The pain comes from the nail piercing the soft parts. Allowing the nail to grow long and beyond the point of the tender spot will help; and on the side of the nail and under it cotton should be inserted to protect the soft parts.

Hot foot baths will generally relieve tired feet. Boys should be very careful in trimming corns for fear of blood poisoning. Never buy plates for flat feet at a store. They may not be adapted to your needs. Always consult a foot specialist for treatment and buy plates if needed on his order. Only severe cases need plates.

Many boys are troubled with perspiring feet and are frequently annoyed by the odor resulting. Those who are thus troubled should wash the feet often and care-

fully, especially between the toes. By dusting the feet with boric acid the odor will disappear. At first it may be necessary to change the stockings daily. In severe cases two pairs of shoes should be used, changing regularly.

Care of the Finger Nails

The chief thing in the care of the finger nails is to keep them clean. Each boy should possess and use a nail brush. Always wash the hands thoroughly before eating, and use the end of a nail file to remove the accumulation still remaining under the nails. Keep the nails properly trimmed. They should not be too long nor too short. If long they are liable to break and if short to be sensitive. Biting the nails is a filthy practice and mutilates the fingers dreadfully and makes them unsightly. It is a very hard habit to overcome oftentimes and will require persistent effort in order to succeed. By keeping the nails smooth the tendency to bite them will to some extent be overcome. A bitter application to the nails will often remind one of the habit, as often the biting is done unconsciously. The nails should never be pared with a knife; a curved pair of scissors is better, as the cutting should be done in a curved direction; but the best method is to use a file. The skin overhanging the nails should be pressed back once a week to keep them shapely. Rubbing the nails with a nail buffer or cloth will keep them polished.



Sleep

One thing a growing boy wants to be long on is sleep, and yet he is most apt to be careless about it. It is during sleep that a boy grows most and catches up. During his waking hours he tears down and burns up

more tissue than he builds. Good, sound, and sufficient sleep is essential to growth, strength, and endurance. A Boy Scout should have at least nine or ten hours' sleep out of every twenty-four. If you lose on this amount on one day, make it up the next. Whenever unusually tired, or when you feel out of trim, stay in bed a few hours more if it is possible. A boy should wake up each morning feeling like a fighting cock. When he doesn't he ought to get to bed earlier that night. Sleep is a wonderful restorative and tonic. It helps to store up energy and conserve strength.

Sleeping Out of Doors

The conditions under which one sleeps are as important as the length of time one sleeps. Many people are finding it wonderfully helpful and invigorating to sleep out of doors. Often a back porch can be arranged, or, in summer, a tent can be pitched in the yard. But, by all means, the sleeping room should be well ventilated. Windows should be thrown wide open. Avoid drafts. If the bed is in such relation to the windows as to cause the wind to blow directly on it, a screen can be used to divert it or a sheet hung up as protection. Good, fresh, cool air is a splendid tonic. In winter open windows are a splendid preparation for camping out in summer.

Conservation

In this chapter much has been said of the active measures which a boy should take in order to become strong and well. We should be equally concerned in saving and storing up natural forces we already have. In the body of every boy who has reached his teens, the Creator of the universe has sown a very important fluid. This fluid is the most wonderful material in all the physical world. Some parts of it find their way

into the blood, and through the blood give tone to the muscles, power to the brain, and strength to the nerves. This fluid is the sex fluid. When this fluid appears in a boy's body, it works a wonderful change in him. His chest deepens, his shoulders broaden, his voice changes, his ideals are changed and enlarged. It gives him the capacity for deep feeling, for rich emotion. Pity the boy, therefore, who has wrong ideas of this important function, because they will lower his ideals of life. These organs actually secrete into the blood material that makes a boy manly, strong, and noble. Any habit which a boy has that causes this fluid to be discharged from the body tends to weaken his strength, to make him less able to resist disease, and often unfortunately fastens upon him habits which later in life can be broken only with great difficulty. Even several years before this fluid appears in the body such habits are harmful to a growing boy.

To become strong, therefore, one must be pure in thought and clean in habit. This power which I have spoken of must be conserved, because this sex function is so deep and strong that there will come times when temptation to wrong habits will be very powerful. But remember that to yield means to sacrifice strength and power and manliness.



CHAPTER III

Campcraft

By L. L. McDONALD

Director Camping, Boy Scouts of America

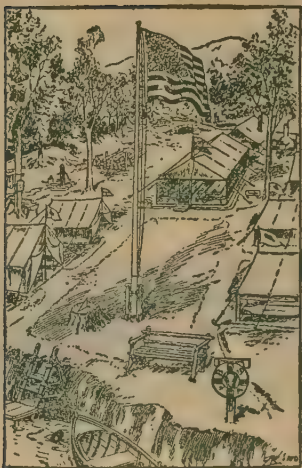
Campcraft is the how-to-do-it of good camping. The Boy Scout learns Campcraft along with many other useful things in the most interesting way. In fact Campcraft features are so prominent that no Scout can reach First Class without being well on way in the fundamentals of safe, efficient and enjoyable out-of-door life.



In America, boys and men as a rule, take readily to out-door life, because so many of our relatives and ancestors have been pioneers, woodsmen, explorers, farmers, surveyors, ranchmen, and prospectors who had a part in discovering and developing of the great natural resources of a new world.

These men had to live in the wilderness so much and found it so fascinating





and wonderful that much of our National tradition and history is a story of camping, and adventure. Our first settlers in New England, Virginia, and the far West had to live first as campers. Every part of the country had to be carefully surveyed and mapped before new settlements could be made. Washington, while a boy of 19, was one of those surveyors and wilderness campers.

Then there were Indian wars which required that settlers must be able to be more clever than the Indian in order to follow him and deal successfully with these cleverest of daring hunters, who for many generations had made out-door-life a fine art. Daniel Boone and many others had to learn the Indian's tricks and outplay him at his own game.

Then the lumber camps, construction camps, mining camps, made many other expert campers. Lincoln, while yet a boy, was one of those rail-splitters and woodsmen, and also a surveyor.

In the west the term "tenderfoot" was applied to the newcomer who didn't know the ways of the out-doorsman. Why do you suppose the name was chosen? Well, if you've travelled the long wilderness trails, on the plains or through rough country, you won't have to guess. There's a very good reason.

Camping nowadays is done more for the fun of it than anything else, but it is amazing how much there is

yet to be done in the way of exploring and discovering things that have been overlooked or forgotten. We have such a wonderful country, so large and so varied, that even today we can't be really well educated Americans unless we know our great out-of-door places and how to enjoy and appreciate the benefits they offer for recreation and still further development as one of our greatest national resources.



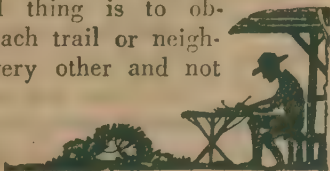
The Turk's head slip-on, and how to tie your own.

Slip-ons made from wood or bone.

How to Become a Camper

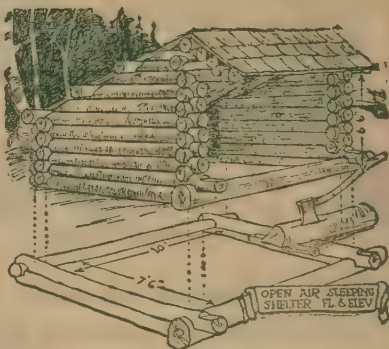
The Tenderfoot must first of all learn how to find his way by using a compass. When your compass doesn't work or if you have none, you must depend on observation of land-marks on which you fix your attention. A peculiar shaped tree, rock or perhaps a water fall, something that is sure to be there when you go that way again. Did you ever hear of an Indian getting lost in the woods? And yet he never carried a compass. That is because he has formed the habit of keen observation of the features of every landscape, and fixing it in mind in the same way you recognize people you meet without carrying a picture of each in your pocket by which to identify them. You remember because you are interested. Find something interesting along the road or trail, and you will remember it. There are many ways of marking permanent trails. These are told on page 155. The most practical thing is to observe marks which make each trail or neighborhood different from every other and not to mar it by making too many new marks.

The general slope of the



land, the main streams, lakes, kinds and size of trees, hill-tops, power lines, main roadways and railroads (if there are any), old logging trails and game trails are also good to keep in mind.

Begin right where you are. Practice describing to others how to find their way to various nearby places by natural objects or land-marks. A Scout Camper not only finds the way for himself, but can help others to do so. Another thing is to learn how to find



your way at night when many of the usual signs can not be seen. You are much more likely to lose your way at night, and you may have to keep on going. Stars, hill-tops, lights, train whistles, barking dogs may help you to keep your direction.

Of course the best place to learn all these things is in camp, but the more you have developed this sense the happier you will be in camp.

Hiking and exploring are much harder and require far more preparation than camping out in a fixed camp. It is far better at first to go camping with your Troop in some carefully selected place before trying to do any extensive hiking. There is so much to learn you will need all the time you have day and night, to acquire the habit. You must learn to do the many things for yourself that others do for you at home and find different ways of doing them, and different things to do with. The Scout camper learns how to make himself as comfortable as possible under all conditions. The Tender-

foot may think it brave to "rough it" and disregard all comfort. About the second day out he cripples along with blistered feet because he doesn't know that campers must care for their feet. He can't take a street car or a limousine in camp, and comfortable feet are essential.



Next he develops a sunburn and a cold. He has to learn that clothing has real uses. Then he gets bilious and irritable and drowsy because he hasn't learned what and how much to eat, how to build a proper fire, do camp cooking or to sleep comfortably. A camper must get rest and sleep to keep himself well and ready for hard work and play. If it rains he gets wet because he doesn't know how to pitch or ditch his tent. He gets a cold because he shuts his tent so tight that there isn't a breath of fresh air. An old camper knows he must not waste anything and most of all he must conserve all his

energy possible by careful eating, proper clothing, shelter from unnecessary exposure, and he must have a comfortable bed in which to rest, for sleep is vital.

So turn your attention and ingenuity to ways of making yourself comfortable, but remember that you must be able to do it yourself. Don't depend on or blame someone else if you fail.

How to Start

Here is the way a Troop of Boy Scouts from a large town in the part of Oklahoma which was formerly the old Indian Territory went about it to become good campers. They were all what you might call city boys and, although some of their fathers had been real pioneers and told wonderful stories of adventure in "the good old days," the younger generation, strange as it may seem, had never yet had a chance to do any camping.

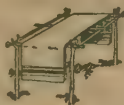
Fathers were too busy and the old range for miles in every direction was fenced, cultivated and "posted." "No hunting, no trespassing and keep off." When the Scout Troop was organized, every boy expected that this would be his chance to go to camp right away. Some asked even before they took their Tenderfoot test "If we join, how soon can we go camping?"

Fortunately, the Scoutmaster was an old time camper and knew they had a great deal to learn first, which boys living out on the ranches or in the woods and mountain country learn by everyday life. So, he told them they would be getting ready right away, but, when they could really have a camp depended on how well they did their regular Scout tests.

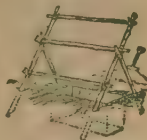


A Hike

On a Saturday afternoon, they went on a short hike to the edge of town to an old abandoned brick yard near a small stream where there were trees. Each wanted to cook over a camp fire of his own and they soon began to understand why the Scoutmaster had insisted that before they could have a real Troop Camp, there would be a great deal for them to learn. Of course, they had Scout axes and every Tenderfoot wanted to cut down a live tree to build his cooking fire. But that wouldn't do, and they went to get dead timber. Some picked the biggest dead trees they could find, but, of course, the ones who were wise enough to gather small dry branches requiring little or no chopping had their cooking done before the others got fairly started. Hardly anybody had brought salt or sugar in his pack and one boy used up a whole box of matches before he learned to use whittlings, very small twigs and dry leaves before piling on big sticks or logs on his fire. It was dark before they finished this first experiment and, after playing a Scout game they started for home determined to "Be Prepared" before the next hike. There was much practicing on fire building after school that week and home folks were answering all kinds of questions on how to fry and bake and broil and stew things over a fire out of doors.



*Blanket
Rack*



*Simple
Latrine*

A Treasure Hunt

But cooking wasn't all of camping. The next hike was called a "treasure hunt." By Patrols, they started

on two routes, one going southwest, the other northwest, using the compass, they were to find a large elm tree where a note was to be found telling where to go next. Almost every kind of a tree was called an elm by some boy. The note when found said "Go directly west one-eighth of a mile and find a message on or near a cotton-



wood tree. More use of compass—more discussion of

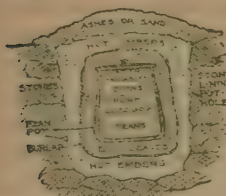
how many feet and how many paces in one-eighth of a mile and "who knows a cotton-wood tree?"

Then they were to follow a certain stream till they came to a sand stone cliff and get some more directions under some willows. "Sand stone," "willows?" Finally, one Patrol located the hidden treasure—a big box of marshmallows—and made so much noise that the other Patrol which had entirely lost their trail came crashing in to share the spoils, displaying a note in which the trail maker had put "Go S. E.," when it should have been "S. W." Much discussion and they agreed that instead of lynching or bawling out the Senior Patrol Leaders who made the trail, there should be a court martial at the next Troop meeting to decide who was to blame and what should be done about it.

Sleeping Out

But sleeping out was yet to come on another short hike. They used grass and hay for beds, and carried shelter tents. One Patrol got ambitious and thatched a hut with long prairie grass. The frame-work was made of small cotton-wood poles lashed together and thatching put on in layers like shingles and tied to the frame by heavy binder twine. They slept on the ground. It rained. The grass roof held, but after this first heavy rain the hut and each shelter tent was always carefully

and thoughtfully ditched—for good and sufficient reasons!



Bean Hole

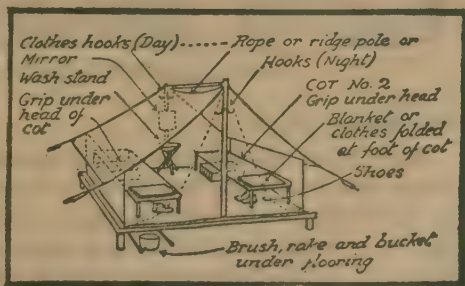
One morning after cooking their own breakfasts they were reporting "Good Turns" by each telling one "Good Turn" he had observed some other Scout doing. Jimmie McCormack reported "Mr. Pritchard did me a good turn. He actually ate a flapjack that I had cooked for my breakfast!" It takes a lot of practice to make frying pan flap-jacks really fit to eat.

More Hikes

For two or three months, practice hikes and overnight camps to places not more than three or four miles from the city were conducted to discover who was a good enough Scout to go with the party which was to make a real camp in the Arbuckle Mountains. Only those who could qualify would be accepted, for this was to be a Boy Scout Camp.



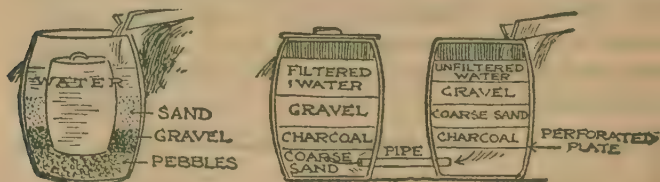
"Ikie" Landon could always produce from somewhere in his pockets or duffle bag, in any emergency just what he needed, buttons, needles, safety pins, a whetstone, string, dry matches, a piece of wire, First Aid supplies, an extra candle, a sharp knife.



Clarence Brody always knew a new game or trick or story for around the camp fire. Jack Stevens could bake hunter's biscuits, and macaroni with cheese. Lee Higgins was always forgetting to bring enough to eat, begging eats from the rest of the gang. Dave Hoxie was so often losing his temper or "picking on" some little kid half his size. Dick Lyons was never without a compass and a road map. "Clokey" was thinking he could light fire without matches. Fred was an amateur weather prophet, knew signs, clouds and weather maps—always cheerful. All these facts were being noted (and many more) in selecting Scouts who were to qualify or be left at home.

When August came they had a picked party of nineteen campers.

Money enough had been saved to cover all necessary expense. Many ideas of what was necessary in equipment, food supplies, cooking utensils, First Aid supplies, had been discussed and decided by referring to old campers or published literature in the public library.

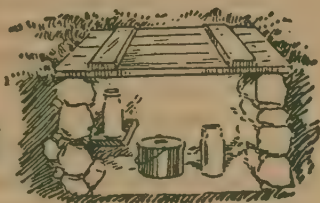


WAYS TO FILTER WATER

Off To the Hills

They hiked all the way to the mountains, tents and provisions only were carried on a wagon. There were no auto roads. They did all their own cooking—pitched their own tents, found their own way by map and compass and did real pioneering. The Scoutmaster went as advisor and took pot luck with the rest, but there was no shirking, no quitters, no quarrelling. The camp had

all the necessary equipment, but no junk, no frills. The party was organized and was camping with a purpose; they were upholding the honor of the Troop, and the Scout Law was the law of the camp. Each had said "On my honor, I will do my best." And everything they could learn about out-door life would be useful in building a bigger Troop and a bigger camp for next year.



SCOUT CAMP COOLERS

Every Scout a Camper

One thing every Scout looks forward to is CAMP! It is one of the big things of Scouting—not only fun but Scout training and also learning to get along with other fellows, too.

As Local Councils and Troops are now universally running camps, every Scout is urged to accept every opportunity to attend and enjoy this camp training.

Indeed, when older Scouts have had sufficient experience as campers they may be used as camp leaders, thus passing on the investment already made in them. In fact, camp leadership is a real business.

Over 400,000 boys camped in Scout Camps during the past year—more campers, by the way, than all other organizations in the United States had put together. As a Scout Camper, therefore, you are a part of the greatest thing of its kind in the world—so enjoy it and learn thoroughly its craft.

CHAPTER IV

Citizenraft

By H. W. HURT

Author of "My Citizenship," American Citizenship Foundation.

We American citizens of to-day often forget that across the dark centuries of tyranny men used to DREAM of having some part in government, hoped sometime to have some voice in public affairs.

Our America indeed has been the answer to those prayers, for ever since Colonial days, it has afforded men precisely those opportunities.

Here, in our country first grew representative government under an agreed upon constitution. Here government has operated through officers elected by the citizens themselves. We have thought little of these things because we have always had them.

These rights, however, did not come easily; they were the fruits of centuries bathed in blood. What are these rights you and I enjoy today?

Our Rights as Citizens of the U. S. A.

1. *The Right of Participation* in representative government.
2. *The Right of Self-realization*—the chance for education—to develop one's powers and to progress upward.
3. *The Right of Freedom* under law—freedom, religious; freedom of speech, of assembly and of the press.
4. *The Right of Protection* of life and property, of family and character.
5. *The Equal and Coordinate Rights of OTHERS* to just such peace and good will and outlook.

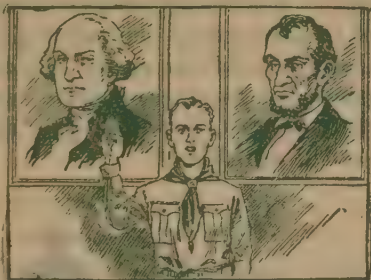


Though GIVEN to us, these things were BOUGHT and PAID FOR IN HUMAN BLOOD; what we HAVE without effort, someone else gave life to EARN.

That is the thrilling thing about CITIZENSHIP, it is a HERITAGE passed on from father to son. Each father builds of himself a citizen of whatever value and then as he passes on, his son who has been building himself into a citizen, comes on to take the father's place.

Every Man of Us Is Building Himself into a Citizen

What then is the nature of this CITIZENSHIP? What is it that binds a citizen to his country? Why have the Swiss shed their blood for their mountains, the Dutch for their dikes, the French peasants for their fields? WHAT IS IT? This force is something unseen, something spiritual—it is a RELATIONSHIP. Relationships are the strongest things in the world. They hold like cables of steel.



Newton saw an apple fall—but he did not see the force that pulled it.

In the Argonne, Americans walked boldly into death, one could not see the force that pulled them! Gravitation and Patriotism are two relationships—they are invisible—yet one holds the swinging planets in their places, the other prompts men to duty or holds them true as steel to their sacred honor.

ALL RELATIONSHIPS have two sides—they reach TO ME and extend FROM ME. My Country gives me protection but it exacts loyal allegiance. But citizenship is vastly more than trading allegiance for protection. Upon that legal skeleton, real citizens build the warm elements of patriotism, intense love of Country, loyalty to her, readiness to die for her or to live one's best for her.

It means more than breaking no laws, it means positively adding value to our country. The "TO-ME" side of American citizenship is challenging—it is a wondrous heritage gleaned from all the world.

What Is This Heritage?

You and I have physical America, unmatched for beauty and for rich and varied resources,—the grandeur of her mountains—the peace of her great open plains—the majesty of her rivers—the cathedral silences of her green forests—the ceaseless waves which guard her shores,—great, beautiful, rich, and not yet overcrowded—OUR AMERICA!



We have Civilization, receiving free all the accumulated benefits of Human rights growingly recognized in education and opportunity for each—of science, with its care for life and its multiplying comforts—of litera-

ture, with its printed pages of experience and ideals—*of art*, which in varied fields, reveals to us beauty—*of invention*, which has completely changed labor and leisure—*of transportation and communication*, which have subdued those ancient tyrants time and space—*of brotherhood*, extending good will and “Good Turns.”

The real heritage of a people is their ideas and ideals, the traditions of a JUST past, the lofty service of their unselfish leaders. The heritage of America (yours and mine) includes the prehistoric mound builders, the cliff-dwellers, the sun worshipping peoples of Central America, the fine, simple nobility of the American Indian, his religious devotion, his care of woman and child—Longfellow in his *Hiawatha* has visioned clearly the Indian whose hunting grounds we usurped.

The hardy Norseman and other venturesome spirits who sailed uncharted seas—the fearless will of Columbus who braved storm without and mutiny within, until floating branch and winging bird announced America—these are ours.

Also the early Colonists who though guilty of pushing out another race, were not busied with plunder and booty, but with the stern task of hewing homes out of forest and soil. Practically every colonizing group was religious in character and brought the best ideals of their peoples.

Captain John Smith and the Virginia Colonies, the immortal Mayflower with its Puritans, the Catholics in



Maryland and the French priests from Canada to the Gulf, the Wesleyans in the South, the Quakers in Pennsylvania—all these are part of the undying heritage of every American, born or naturalized.

Patrick Henry's "Give me Liberty or give me death," the fearless resolutions of James Otis, the Boston Tea Party, the midnight ride of Paul Revere, the Minutemen at Lexington, the memory of Bunker Hill, the fine gentlemanly leadership of Washington, the discouragements tracked in blood on the snow of Valley Forge, crossing the icy Delaware, the surrender of Cornwallis—these are events which quicken our patriot blood.

The old "Liberty Bell" sounding to the world our Declaration of Independence and human rights—then the problems of jealousies among the Colonies out of which Hamilton, Madison, Franklin, Jefferson, Webster, Adams, Monroe, Clay, Calhoun and scores of others builded "The Union," the survival of European difficulties and the statement of the Monroe Doctrine—these are our own.



The Civil War, where the slavery and secession issue divided brother against brother, and which turned back the progress of the North a decade and the South a half-century—even this did not long check the onward sweep of invention and manufacture and production to which we are heir today.

The words of Lincoln—great hearted, humble as the log cabin of his birth, majestic in his simplicity, universal in his sympathy—

"With malice toward none; with charity for all; with firmness in the right as God gives us to see the right, let us strive on to finish the work we are in; to bind up the nation's wounds; to care for him who shall have borne the battle, and for his widow and his orphan—to do all which may achieve and cherish a just and lasting peace among ourselves, and with all nations," are our heritage, as are the herculean efforts of the men and women of Lee and of Grant to rebuild and recement America—these are our heritage from noble dead.

Ours also the fine, manly qualities of McKinley, under whose leadership America swiftly ended Spain's oppression in Cuba. We are heir to that great quickening of the public conscience which Theodore Roosevelt achieved among us—that dynamo of energy and ideals—"Teddy"—apostle of the strenuous life, lover of the out-of-doors, exemplar of the clean game, hard fought—his spirit lives on among us.

Then, too, ours is the idealism of Wilson, under whose leadership the millions of Americans went overseas and even "west" that "*the world might be made safe for democracy*." The heroism, nobility, the loss of self in serving others which our khaki-clad "dough boys" lived—that is our sacred heritage from "the crosses row on row." But ours too is the task to "catch the torch" they've flung from a sinking hand and to "carry on" that larger vision of citizenship alike to die or worthily live for our America. Ours is a nation dedicated to peace and fair dealing with all peoples.



This, Oh, Scout! is something of the heritage which comes TO ME and TO YOU, as citizens of these United States.

What Shall We Return to America?

We should return *Ourselves*—but *builded into the best citizens* we can make of ourselves.

The Scout Oath points the way—building ourselves into citizens:

I. "*Physically strong*" because we build habits in obedience to the Physical Laws, the laws of the bodily machine.



1. *The Law of Cleanliness*—clean inside and outside.
2. *The Law of Regularity*—meals, sleep, work, play.
3. *The Law of Moderation*—neither too little nor too much.
4. *The Law of Maintenance*—food and rest.
5. *The Law of Doing*—Activity, work and play.

II. "*Mentally awake*" because we build habits of observation and reasoning upon the Laws of Experience.

1. *The Law of Attention* (Concentrate! One thing at a time).
2. *The Law of Experience* (Looking back, then looking forward).
3. *The Law of Action* (What I DO builds habits).
4. *The Law of Learning* (Other folks' experience saves time!)
5. *The Law of Desire* (We get what we rightly want).

III. "*Morally Straight*" because we build habits by consciously DOING desirable things. There are five basic moral laws of standards:

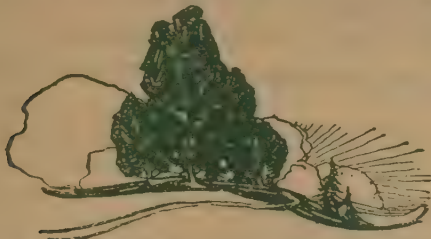
1. *The Law of Truth* (No falseness).
2. *The Law of Honor* (Consciousness of living in truth).
3. *The Law of Justice* (Fairness—truth in action).
4. *The Law of Duty* (The return ticket from privilege).
5. *The Law of Love* (Brotherhood, courtesy—good will to all).

Not only squareness and fairness, BUT also SERVICE are necessary. Modern psychology says we "learn

by doing," that we learn to swim by working at it—even so—we *get to be* good citizens by actually BEING useful citizens.

The Scout "Good Turn" is an advanced course in good citizenship—it shows its *devotion* to America by *doing for* America and her people.

That is the beginning of Good Citizenship.



My Education

Wm. McAndrew, Superintendent of Schools, Chicago.

My country provides free education for me and for everybody. Why is this? Is it a charity? Is the entire country so fond of me that it takes not only my father to pay for my schooling but requires every property owner, whether he has children or not, to pay for the education of all children?

Apparently this is not intended as a free gift for me. The whole community is paying for my education for *some return* due to the community itself. If I study the ideas that were put forward when American education was made a public and not a private expense, I find that the men who made it so promised that *those educated by public taxes would serve the community!*

If I *take* their education for which my father pays less than a twentieth of what it costs, I must honestly *give* the community an equivalent. When shall I do it? Why not now? Why should I not GIVE while I am TAKING?

What "GOOD TURNS" can I do for my town while it is paying for my education?

What May We Fairly Expect a Good Citizen To Do?

I. In his personal life

1. *His Education*—Keep daily adding to his knowledge.
2. *His Business*—give honest value plus friendly courtesy.
3. *His Home*—never get too tired to bring to it his BEST side.
4. *His Church*—Identify himself actively.
5. *His Leisure*—spend it usefully and worthily (+ not —).
6. *His Health*—Keep physically fit and spiritually responsible.

II. In his public life

1. *His Law Observance*—set an example of obedience.
2. *His Taxes*—honestly record and pay his part.
3. *His Vote*—TO VOTE—wide-open-eyed and honestly.
4. *His Membership*—be actively associated in worthy groups that publicly and justly seek the common good of every American. His criticisms should be constructive, and given quietly to those concerned and should try to point the way to improvement.
5. *His Volunteer Service*—every community needs men to give time free for various charitable, religious, educational, public health and similar services—Scout leadership is such a service—jury service is another—public office sometimes is another.

Here is a simple active program of good citizenship within the reach of any average citizen—which universally practiced would solve most of our problems.





Some High Points in American History

- 1492 Columbus discovered America.
- 1497 John Cabot discovered the North American Continent.
- 1513 Ponce de Leon discovered Florida.
- 1519 Magellan sailed around the world. Cortez in Mexico.
- 1607 First Permanent English settlement Jamestown, Va.
- 1608 Champlain founded Quebec.
- 1609 Hendrick Hudson on the Hudson River.
- 1619 Slaves brought to Virginia.
- 1620 Landing of the Pilgrims from Mayflower.
- 1626 New Amsterdam founded (New York City).
- 1634 Maryland founded by Lord Baltimore.
- 1636 Harvard College founded in Massachusetts.
- 1639 First press in America set up (Cambridge).
- 1752 Franklin experiments with electricity.
- 1761 James Otis argues against Writs of Assistance.
- 1773 Boston Tea Party—Daniel Boone in Kentucky.
- 1775 Minute Men at Lexington, April 19—Bunker Hill, June 17.
- 1776 Declaration of Independence, July 4.
- 1777 June 14, Official Flag adopted.
- 1781 Cornwallis surrenders—Yorktown, Va. Articles of Confederation.
- 1783 Peace signed with England.
- 1788 New Constitution ratified (1789-1796), George Washington, President.
- 1793 Whitney's Cotton Gin invented.
- 1796 First Permanent type foundry, Philadelphia.
- 1797 First cast iron plow—Charles Newbold, of N. J.
- 1800 Capital removed to Washington, D. C.

- 1800 India Rubber first introduced.
- 1812-1814 War with Great Britain.
- 1812 Stove invented with grates—Metallic pens made.
- 1815 First ocean steamboat trip—New York to Norfolk.
- 1819 Florida purchased by U. S. \$5,000,000.
- 1823 Monroe Doctrine stated.
- 1825 Erie Canal completed.
- 1827 Baltimore and Ohio R.R. chartered and laid.
- 1829 Steam locomotive first used successfully.
- 1831 Manning patents first mowing machine.
McCormick invents first reaper (patented 1834).
- 1832 Pork Packing begins in Chicago.
- 1835 Morse invents magnetic telegraph.
- 1836 First typewriter and friction matches.
- 1839 Vulcanized rubber patented by Goodyear.
J. W. Draper takes first photograph from life.
- 1840 10 hour working day introduced in public establishments
by Van Buren.
- 1842 First Factory for pocket knives established in Conn.
Anaesthesia first used by Dr. Long of Athens, Ga.
- 1844 Telegraph successfully used.
- 1846 Howe invents sewing machine.
- 1849 Gold rush to California.
- 1853 Gadsden purchase from Mexico.
New York Clearing House established.
Chicago reached by rail.
- 1856 First bridge over Mississippi at Rock Island.
- 1861-1865 Civil War—Lincoln, Davis, Grant, Lee.
- 1862 Agricultural Colleges first established by Federal Act.
- 1864 First sleeping cars—first postal money orders.
- 1867 First wood pulp paper—first steel rails in U. S.
- 1869 First transcontinental Railroad.
- 1869 Eight hour law for Federal Employees.
- 1870 First Kindergarten opened in Boston.
- 1876 Bell patents first telephone.
- 1878 Introduction of incandescent lights.
- 1880 U. S. takes first rank agriculturally among nations.
- 1886 Statue of Liberty unveiled.
- 1887 Beet sugar first produced (Alvarado, Calif.)
- 1892 Long Distance Telephone line, New York to Chicago.

- 1898 Spanish-American War.
- 1899 First Juvenile Courts (Chicago).
- 1902 First wireless message across Atlantic.
- 1903 Pacific Cable completed round the world message in 12 minutes.
- 1905 Power plants at Niagara Falls.
- 1906 Passage of Pure Food Drug Act.
- 1907 U. S. Fleet makes round the world cruise.
- 1908 N. Y. tunnels under East River and Hudson.
- 1909 Peary reaches North Pole.
- 1913 Parcels Post system started.
- 1914-1918 World War—U. S. World War 1917-1918.
- 1915 Transcontinental telephone service.
- 1918 First fabricated and first cement ships.
- 1918 Nov. 11, World War Armistice signed.
- 1919 National woman's suffrage.
Reed flies across the Atlantic.
- 1919 June 28 World War Peace Treaty signed.
May 16-31 NC-4 U. S. seaplane flight across Atlantic Ocean.
June 14-15 First airplane (by Alcock, British, and Brown, U. S.) non-stop flight across Atlantic Ocean.
July 2-6 R-34 British dirigible flight across Atlantic Ocean. (Returned July 10-13).
International Court of Justice (League of Nations).
- 1920 Jan. 16, 18th Amendment (Volstead Act) to the U. S. Constitution went into effect.
Aug. 26, 19th Amendment (Woman Suffrage Bill) to the U. S. Constitution went into effect.
- 1921 Aug. 25 Peace Treaty signed between U. S. and Germany and Austria.
Nov. 11 Unknown Soldier buried and memorial dedicated. Limitation of Armaments Conference, Nov. 11-Feb. 6.
- 1924 March 16-Sept. 28, Three U. S. Army airplanes circled the globe.
Oct. 12-15, Dirigible ZR-3 flown from Germany to U. S. and turned over as war indemnity.
- 1925 April 13 Inauguration of first commercial aviation line on regular schedule (Detroit to Chicago).
- 1926 Air mail service New York to San Francisco.
- 1927 Trans-Atlantic Airplane flights. Lindbergh, Chamberlin, Byrd, Brock and Schlee.

The Presidents of the United States

No.	Names	Born	Inaugu- rated	Years in Office	Died	Native	Polit
1	George Washington	2/22/1732	4/30/1789	8	12/14/1799	Va.	Fed.
2	John Adams	10/31/1735	3/ 4/1797	4	7/ 4/1826	Mass.	Fed.
3	Thomas Jefferson	4/ 2/1743	3/ 4/1801	8	7/ 4/1826	Va.	Rep.
4	James Madison	3/16/1751	3/ 4/1809	8	6/28/1836	Va.	Rep.
5	James Monroe	4/28/1758	3/ 4/1817	8	7/ 4/1831	Va.	Rep.
6	John Quincy Adams	7/11/1767	3/ 4/1825	4	2/23/1848	Mass.	Coal.
7	Andrew Jackson	3/15/1767	3/ 4/1829	8	6/ 8/1845	S. C.	Dem.
8	Martin Van Buren	12/ 5/1782	3/ 4/1837	4	7/24/1862	N. Y.	Dem.
9	Wm. H. Harrison	2/ 9/1773	3/ 4/1841	1/12	4/ 4/1841	Va.	Whig
10	John Tyler	3/29/1790	4/ 6/1841	3 11/12	1/18/1862	Va.	Dem.
11	James K. Polk	11/ 2/1795	3/ 4/1845	4	6/15/1849	N. C.	Dem.
12	Zachary Taylor	9/24/1784	3/ 4/1849	1 1/3	7/ 9/1850	Va.	Whig
13	Millard Fillmore	1/ 7/1800	7/ 9/1850	2 2/3	3/ 8/1874	N. Y.	Whig
14	Franklin Pierce	11/23/1804	6/ 4/1853	4	10/ 8/1869	N. H.	Dem.
15	James Buchanan	4/23/1791	3/ 4/1857	4	6/ 1/1868	Penn.	Dem.
16	Abraham Lincoln	2/12/1809	3/ 4/1861	4 1/9	4/15/1865	Ky.	Rep.
17	Andrew Johnson	12/29/1808	4/15/1865	3 21/24	7/31/1875	N. C.	Rep.
18	U. S. Grant	4/27/1822	3/ 4/1869	8	7/23/1885	Ohio	Rep.
19	Rutherford B. Hayes	10/ 4/1822	3/ 4/1877	4	1/17/1893	Ohio	Rep.
20	James A. Garfield	11/19/1831	3/ 4/1881	13/24	9/19/1881	Ohio	Rep.
21	Chester A. Arthur	10/ 5/1830	9/20/1881	3 11/24	11/18/1886	Vt.	Rep.
22	Grover Cleveland	3/18/1837	3/ 4/1885	4	6/24/1908	N. J.	Dem.
23	Benjamin Harrison	8/20/1833	3/ 4/1889	4	3/12/1901	Ohio	Rep.
24	Grover Cleveland	3/18/1837	3/ 4/1893	4	6/24/1908	N. J.	Dem.
25	William McKinley	1/29/1843	3/ 4/1897	4 19/36	9/14/1901	Ohio	Rep.
26	Theodore Roosevelt	10/27/1858	9/14/1901	7 17/36	1/ 6/1919	N. Y.	Rep.
27	Wm. Howard Taft	9/15/1857	3/ 4/1909	4	3/ 8/1930	Ohio	Rep.
28	Woodrow Wilson	12/28/1856	3/ 4/1913	8	2/ 3/1921	Va.	Dem.
29	Warren G. Harding	11/ 2/1865	3/ 4/1921	2 5/12	8/ 2/1923	Ohio	Rep.
30	Calvin Coolidge	7/ 4/1872	8/ 2/1923	5/5 6/32		Vt.	Rep.
31	Herbert Hoover	8/10/1874	5/ 4/1929			Calif.	Rep.

Wars

War is one of the tragedies of the life of the world. In its wake stalk sorrow, poverty, disease, moral let-down, debt, hatreds, fears.

One-third of the taxation of the world is either to pay for old wars or prepare for new.

War tears down civilization. The effort of home, church, school and state is for us to guard life and respect property—war says kill and destroy. Tragic as is the wastage of billions in property and millions of lives—this reversal of the channels of civilized order is yet more serious in its influence upon youth.



The insane thing about war is that after killing and destroying THEN folks must gather around a table—find what the points at issue are and adjust them finally. In a sane world this would be done FIRST. It is not CONFLICT but CONFERENCE that settles—therefore have it first.

The United States has had the following wars:

- The Revolution* 1775-1781—A war for independence from the misrule of a British minority.
- War of 1812* 1812-1815—A war with Britain because of continued violation of flag, impressment of our seamen, etc.
- Mexican War* 1846-1848—Irritation over repudiated claims became acute when the Republic of Texas applied and was accepted as a State. Mexico claiming Texas.
- Civil War* 1861-1865—Slave issue and secession privilege claimed by Va., N. C., S. C., Ga., Fla., Tenn., Ala., Miss., Ark., La., and Texas.
- Spanish-American War* 1898—Sympathy for oppressed Cubans, precipitated into war by blowing up of Battleship Maine.
- World War* 1914-1918—U. S. participation caused by German Powers refusal to respect American neutrality. (U. S. 1917-1918.)

The Civil War cost us 1,000,000 men and \$2,750,000,000 of indebtedness to say nothing of the property damage—it set back the north 10 years, the south by 50!

The World War left even greater ruin in its wake—it cost the world 20,000,000 in dead and maimed and cost not less than \$500,000,000,000—and all avoidable.

The Boy Scout Movement around the world is creating world friendships, making community of interest among nations clear, and should help prevent future wars.

What individuals and cities and states have learned fairly well—namely to settle their differences before impartial judges may yet be realized between nations.

Why not? And the Scout who LIVES good will and fairness and peace is helping the world recover from the disease of WAR.

CHAPTER V

Handicraft

(1) American Indian Craft

By RALPH HUBBARD

"To study and reproduce Indian ways and customs is no mere child's play!" said an eighteen-year old Scout



to me after a summer in a Scout-Indian camp. It is such a pity that most boys think of head-dresses, war-whoops, tomahawks and scalps the instant Indians are mentioned! This does them the greatest possible

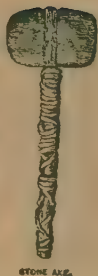
injustice, even though it be natural, since our chief contact with Indians in history has been warfare. There are so many thousand beautiful and desirable things in their lives that it is safe to say they can offer boys a mighty good code of sport and happiness. Good books on Indian Lore are so scarce that it takes time and labor to discover the wholesome, constructive side of the Indian, especially since our schools do not teach much concerning this subject.

So it is that the Boy Scouts of America are adopting Indian Lore into their programs all over the nation, and they are finding it to be about 75 per cent the highest type of Scouting. The boy who studies the crafts, is like the cowpuncher missionary who worked from this





angle among the Utes in Utah, he becomes a friend to all Indians instantly. And one can learn the crafts readily from books since considerable has been written on them, but songs and dances are not to be found so well described in the literature. In fact it is almost impossible to learn the dances from books. No white man can dance as an Indian, but he can try, thereby having a good time and coming in closer understanding with our Red Brothers. The dances are not simply a series of yells and hops and arm-slinging, done with indiscrimination, but, on the other hand, are really scientific. The Reports of the American Bureau of Ethnology, found in most libraries, furnish more and better material on Indians than any other literature. Write the Museum of Natural History, New York City, for these books.



1. Indian Beadwork—(Pamphlet). \$.25.
2. Indians of the Plains—Wissler. \$.75.
3. Indians of the Southwest—Coddard. \$.75.

The Boy Scouts of America publish these pamphlets:

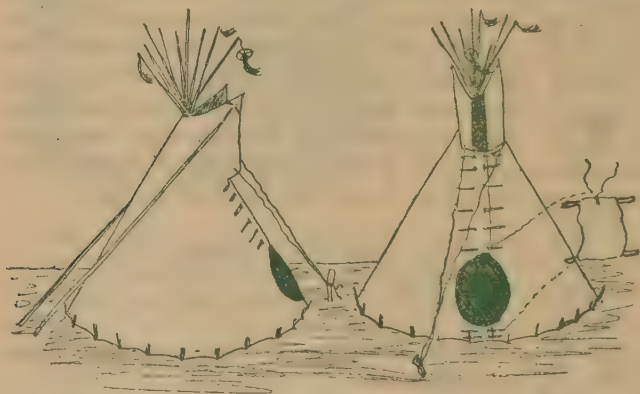
- Beadwork. \$.10.
Indian Handicraft. \$.40.

Why attempt to make a big war-bonnet first thing when a tepee furnishes so much sport and happiness for a whole Troop? To be sure, the rain runs down the poles when you have no "dew-cloth," and you get smoked out when you use "slow sticks" in the fire instead of

"quick sticks," but in time you will learn to handle a tepee so that it will be a real home. When you make a tom-tom you will want to dance, which will next call for a costume, but the professional Indian dancers and those who dance a good deal, do not want heavy costumes. A big headdress is beautiful, but a small, light decoration is much preferred.

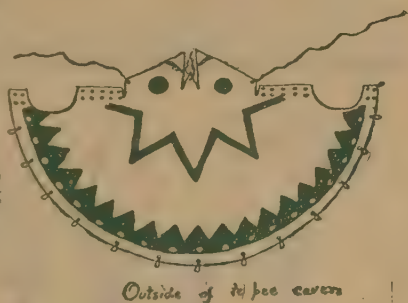
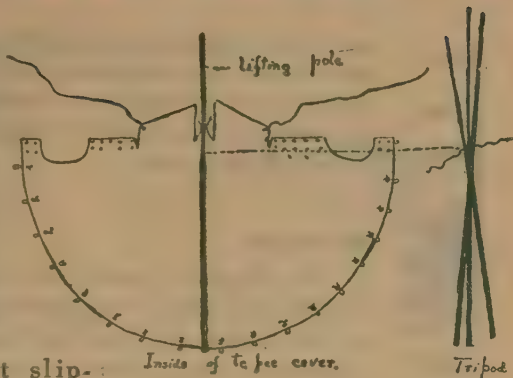
The Tepee

One might write a huge book on how to make and do Indian things, but our space is so limited that we are offering just a few suggestions, starting with the tepee. As shown in the pattern, the tepee cover is cut from a half



circle of canvas or other goods. The overlapping areas used to pin the front together take off some, so that the actual cover when erected would not be half a circle. Using a complete half circle makes the whole structure too squat, and is very hard to manage. If one uses the proportions shown in the diagram, based on the half circle, a tepee can be made any size. On the next page the lifting pole is shown tied at the top even with the margin of canvas.

The tripod poles are tied about eight inches lower than the lifting pole, and they must have the rope around each pole to prevent slipping. In diagram we have the tepee skeleton erected, since the 12 poles have been laid in the tripod which is erected first. The base of the lifting



pole is placed at circumference of base and some boy must hold it there while others hoist the pole and cover at same time, letting it fall in its place directly back of the doorway, which latter is usually faced toward the



east. Next come the lacing pins in the front, then the flap poles as shown in first diagram. Various kinds of streamers, bits of horse tails and imitation "medicine" are suspended from the tips of the poles.

Moccasins

Two types of moccasins are shown, first the "Woods Indian." Any Scout with half an eye can make his own pattern from the suggestions here since he must make a

"WOODS" MOCCASIN PATTERN



Pattern for Woods Indian Moccasin.

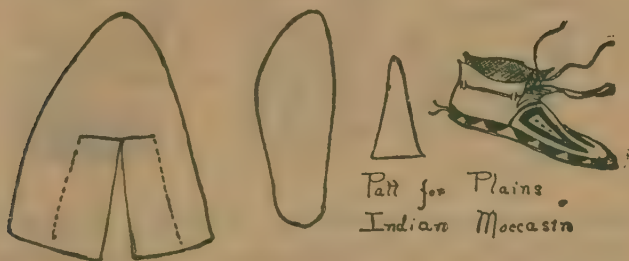
pattern to fit his own feet anyhow. The material in the sole is gathered over the toes and about the instep with strong, waxed thread.

Woods Indians decorate their moccasins with porcupine quills, embroidery, paint and beads as do the Plains people, but more often have no decoration at all. The diagrams show six types of Plains moccasin decorations.



INDIAN MASK.

"PLAINS" MOCCASIN PATTERN



The second type of moccasin is the "Plains Indian," made from a sole cut the shape of the bottom of the foot, and an upper that fits over the instep and heel as shown in diagram. In both types the tongue is sewed on afterwards.

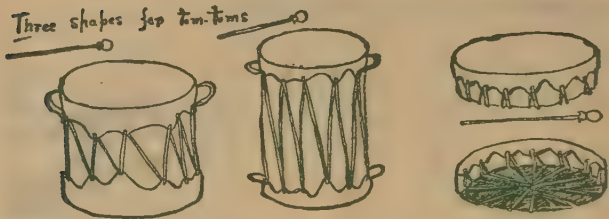
Plains Indian Moccasin Designs



A Tom-Tom

Making a tom-tom requires courage, for the calf, cow, deer or dog skin that is used has to be allowed to partly spoil in order to remove the hair. This is done by soaking the hide in a barrel of water thick with wood ashes or lime. Soft soap will often help the process. The skin side of the material must be scraped clean of fat and flesh then the two heads are

Three shapes for tom-toms

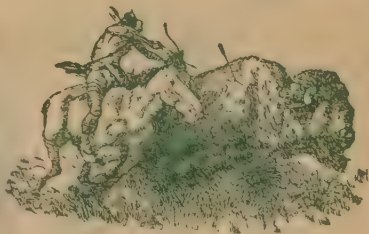


laced as shown in the drawing. Sometimes single-head tom-toms give almost as good tones as double. All sorts of designs are painted on the heads according to the medicine of the tribe and the individual. The material used for drum heads, once shorn of the hair is called "par fleche," a French term used by Indians now, meaning "by the arrow."

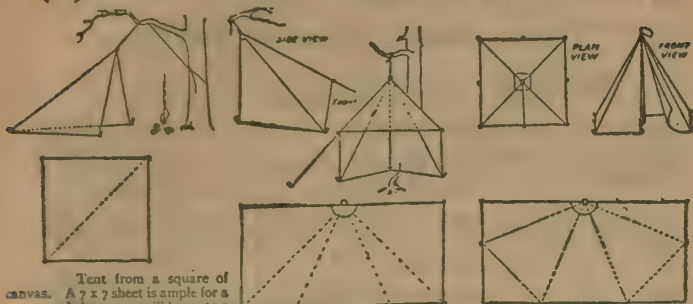
Bows and Arrows

Indian bows and arrows are sometimes quite different from the archery materials used in the tournaments by our Scouts of today. The curves of the bow are secured by

fastening the bow to a larger piece of wood and crowding blocks between the two where the curves are desired and steaming the whole in some moist earth several days. Hickory is used for curved bows almost entirely and where possible, they are nearly always backed with sinew or "par fleche" since they are only about four feet long.



(2) How to Make a Tent

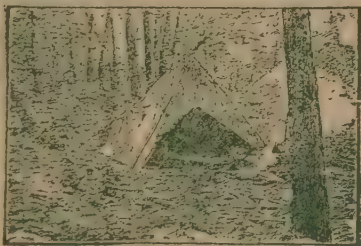


The toque tent

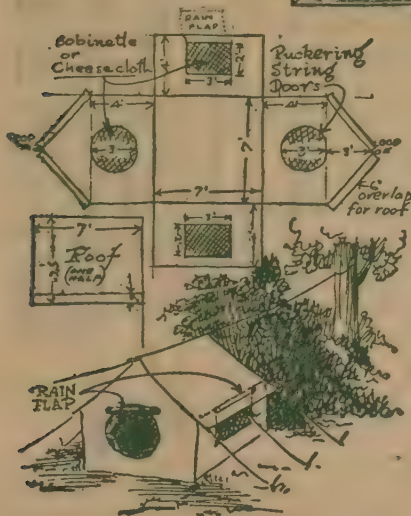
Miner's tent

Open Outing
Tent With Hood

This can be made from thirteen yards of 8 oz. duck canvass, which costs very little.



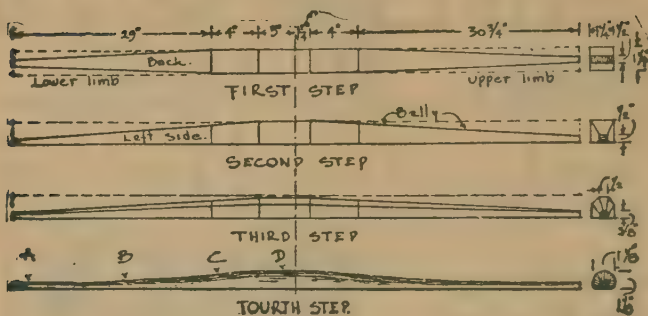
Forester tent with hood

A Tent for
Mosquito
Country

Offered by the editor as being especially adapted for use in mosquito country in hot weather. Tent has floor cloth and weather flaps over cheesecloth windows, and two puckering-string round doors, also with flaps.

(3) How to Make a Bow

Camping Department, Boy Scouts of America



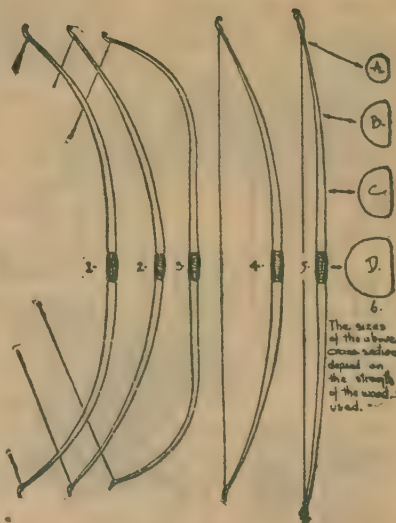
1. Correctly proportioned bow. "The perfect weapon is a trifle stiff at the center, and the lower limb is a shade stronger than the upper."—Pope.

2. Incorrectly proportioned bow. Bends in center.

3. Incorrectly proportioned bow. Too much bend in mid-limbs.

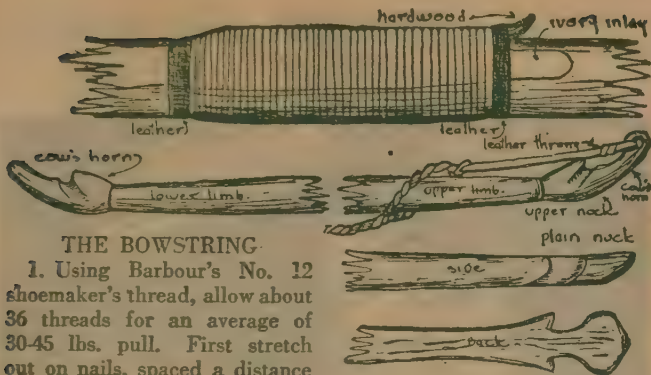
4. A well proportioned bow when braced.

5. A good bow at rest. Slight following of the string is not objectionable.



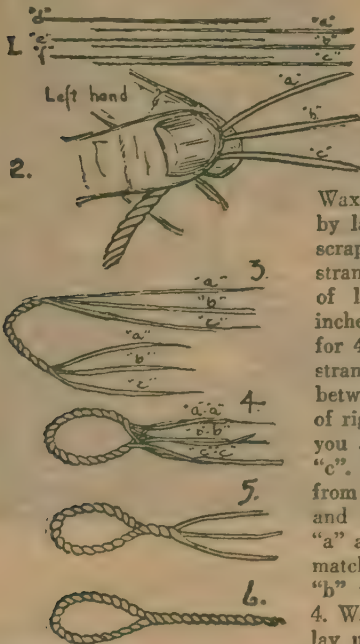
The sizes
of the above
~~cross~~ sections
depend on
the strength
of the wood
used.

6. Cross sections.



THE BOWSTRING

1. Using Barbour's No. 12 shoemaker's thread, allow about 36 threads for an average of 30-45 lbs. pull. First stretch out on nails, spaced a distance



1 foot greater than length of bow, 3 strands "a," "b," "c," of 12 threads each. Wax each strand separately. Next make 3 strands of 6 threads each "d," "e," "f,"—12 inches long.

Wax well. Now taper all ends by laying them upon board and scraping with dull knife. Short strands are now waxed into ends of long strands. 2. Starting 9 inches from end lay up like rope for 4 inches as follows: holding strands as shown, "a" is taken between thumb and forefinger of right hand, twisted away from you and is pulled over "b" and "c". "b" is then twisted away from you and pulled over "c" and "a". "c" then comes over "a" and "b." 3. Form loop and match strands. "a" with "a." "b" with "b." "c" with "c." 4. Wax together. 5. Proceed to lay up as in No. 2 for about 4

inches. 6. Finished loop should be smooth with gradual taper. Opposite end of string is built up the same as loop but is left straight for tying timber hitch around lower nock.

CHAPTER VI

FUNCRAFT



TABLE OF CONTENTS

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(I) Fun from Games

1. Follow the Leader (*game for any number*)

An active leader is selected who runs, jumps, crawls over, under, through obstacles, etc.—everyone following and doing the same. When one misses he goes to the tail of the line.



2. Buzz-Buzz (*3 Scout game*)



They stand side-wise facing in same direction—legs wide apart and with one foot of the middle Scout, just edge to edge against the “inside” foot of each of the other

two. Each “outside” Scout places his “outside” hand over his “inside” ear (thus cutting off this middle Scout from view). Middle Scout wears a hat. He says Buzz - Buzz - Buzz - zz like a bee and touches the “head” hand of one of the Scouts who THEN may at once SWING with his free “inside” hand to knock off the hat—the middle Scout meanwhile “ducking” while keeping his feet in place against his fellow players. When hat is knocked off the one doing so may become middle man.

3. Rooster Fight (*any even number of players*)

With hands clasped around knees while in squatting position, two Scouts try to upset each other out of a six foot circle.

4. Let 'er Buck (*any even number of players*)



A Patrol selects its best horses and riders, then challenges another Patrol. The "Broncho" must keep his hands on his knees—but otherwise may buck, plunge, dodge, squirm as he pleases to unhorse his rider. Rider must hold on with his knees keeping his feet back—he may hold the shoulder or back but not the head or neck or about the body or under the arms. If rider touches ground he's thrown. Three rounds—three minutes each. Score 1-3-5 for one, two and three rounds.

5. Tractor (*4 Scout game*)

Two Scouts on hands and knees, and facing in opposite directions, act as "Tractors." Team mate straddles tractor and holding on with his legs, reaches both hands



back to grip hands of opponent. At the signal the "tug of war" begins. The one unhorsed or pulled back, loses.

6. Slap Jack (*any even number of players*)

Scout No. 1 places open hands, palms down, on the upturned palms of No. 2. No. 2 tries to pull one hand away quickly and slap No. 1's hands on the back. When he fails, No. 1 has his chance.



7. Pillow Fight (*2 Scout game*)

Two contesting Scouts straddle a pole, or stand on rail or log and try to unhorse each other by swatting with pillows.

8. Swat Tag (*any number*)

Instead of "drop the handkerchief," one Scout runs around the circle and leaves large newspaper swatter in some Scout's hand (hands being held behind in the circle, everyone facing in). This Scout may then swat the player on his right all the way around the circle if he is fast enough. Then he puts "the swatter" in one of another Scout's hands and rushes around the circle to get in that fellow's place.

9. Canoe Tilting (*4 Scout game*)

For four Scouts who can swim—two in each of two canoes, one to paddle, the other with a long tilting spear with heavily padded cloth end—bamboo fish poles are excellent. The aim is to tip the other fellow into the water. [Ernest Thompson Seton developed a "tub-tilting" game played similarly on stationary tubs or stools.]



10. Steal the Bacon (*any number of players*)

Two Patrols line up with thirty feet between the lines. They face each other and number through, thus there are two Scouts for each number — one in each line. Two "ones," two "sevens," etc. The "bacon"—a handkerchief, hat, or



similar object lies on the ground in the exact center. The leader calls "sixes" and the two "six" Scouts dash out, each trying to grab the "bacon" and get "home" before the other "six Scout" tags him. Score: one point for getting safely home, or for tagging the Scout carrying the bacon.

11. Patrol Hide and Seek (*2 Patrols or more*)

Like the old "Hide and Seek" game except when the Patrol Leader has hidden all of his Patrol, he returns to the base and announces "ready." He may then signal movements of the "It" Patrol as he desires. For every Scout "caught" before he tags the base, the "It" Patrol registers 1 score. Sides change when "Its" get a count of 10, or when entire Patrol is "caught."

12. Scout Question Ball (*two Patrols*)



Fun can be had with all manner of "question material" for this game. Four bases and a pitcher's box. Patrols compete (more can play) one side gets to "bat." Game opens by pitcher "pitching" a Scout question at the batter. If he answers correctly (Scoutmaster or Patrol Leader as umpire) he advances to first base—if he fails, he is "out." Three "outs" retire the side. Scores are "forced" forward and "home."

Questions may be on First Aid, Signaling, Flag Respects, or almost any field of knowledge.

13. Treasure Hunts (*any number of players*)

A tracking, trailing and then finally finding game. A trail is laid by trail signs, or by distances and trees, or by compass directions to succeeding points, at each one

of which a new direction is found which finally locates the treasure—probably “eats” or something of value. The Scoutmaster or Patrol Leader can plan this and lay the trail.

14. Patrol First Aid Race (*several Patrols*)

Patrols line up 50 yards from patient. At the leader's signal, Scouts run 50 yards to patient; apply triangular bandage to head, and spiral reverse from wrist to elbow; put arm in triangular bandage sling; form four-handed seat and carry patient back AT A WALK. Team to furnish bandages, surplus bandages need not be brought back with patient. Judge—a doctor or first aid expert—shall disqualify team if all bandages are not correctly, neatly and firmly done, or if the Scouts run with or jolt the patient.

In official national contests the rescuing team consists of two Scouts, and the injuries (of which the above are a sample) are found written on a card pinned to the patient's clothing.

15. Capture the Flag (*2 Patrols or 2 Troops*)

The Scouts are divided into two camps, each with a leader and each having its own flag mounted on a light pole or a Scout staff. The players of one camp should be marked by a handkerchief or necktie tied around the arm so that a Scout can tell at a glance whether another Scout is a friend or a foe.

Any Scout found in the enemy's territory may be captured by grasping him and holding on while the captor says, “Caught, caught, caught”! If he does not hold on long enough to say “caught” three times, the other Scout is not captured.

A starting point is chosen near the center of the line, and the game starts with the two Troops or camps assembled close together on opposite sides of the line, each

in its own territory. The Scoutmaster explains the rules of the game, then blows one blast on his whistle as a signal for the two camps to set up their flags within one hundred paces of the starting point.

Guards must not stand nearer than fifty feet from the flag. The guards may follow an enemy into the 50-foot zone.

A prisoner may be released by a friend crossing the line and touching him while the prisoner is touching the guard house. Both are allowed to return free into their own territory unless the rescuer is caught by the guards before he touches the prisoner.

If the raider is caught before he reaches his home territory, the flag is set up again at the point where it was rescued and the game goes on as before.

If neither side captures the enemy's flag within the time agreed upon, which may be an hour, the Scoutmaster calls the game off by blowing the assembly call, and the game is won by the camp that has the most prisoners.



16. Antelope Race (*several Patrols*)

This is to be done by Patrols. The Scouts run in single file with hand on the belt of the Scout ahead. Falling down or breaking apart throws out the team. The distance is fifty yards and return, the turn being made to left. The Pa-



Antelope Race

trool wins whose leader first breaks the tape, provided the Patrol is unbroken throughout the race.

17. Skunk Tag (*any number of players*)



Skunk Tag

This game comes from the Sioux Indians. Each player holds his nose with one hand, holds up one foot with the other hand. As long as he keeps this position he cannot be tagged, but if he lets go with either hand he can be tagged by the boy who is "it."

18. Signalling "Bee" or "Spell-Down"

(*any number of players*)

A Patrol Leader or good Scout signaler takes a position facing two or more Patrols and sends a letter (or words, depending on their knowledge) to the first Scout in each Patrol in turn. If received correctly that Scout is eliminated and the rotation goes on. The first Patrol to be entirely eliminated wins.

NOTE—This same method can be used in First Aid, Knots, Compass, Judging, Fire Building, Fire by Friction, and so on. Its advantage is that those who are “poorest” get the most practice.

19. The “Blind Man” Stalking Game

(any number of players)

A Scoutmaster or Troop official is blindfolded—then the Troop or Patrol members who have kept back 50 yards are turned loose to “stalk” the Blind Man (to touch him) without being HEARD by him before they touch him. When the “blind man” points at a man and cries “halt,” the umpire standing by decides the man out. Patrol wins that “touches” first or most. The “blind man” should select a place where approach will be difficult.

20. Prisoner’s Base (2 Patrols)

Goals are marked off at both ends of the playground, the Scouts divided into two equal Patrols, occupying the two goals. About ten paces to the right of each goal is a prison. A Scout advances toward the opposite goal, when one from that goal starts out to catch him. He retreats, and one from his side runs to his rescue by trying to catch the pursuer—who in turn is succored by one from his side, and so on. Every Scout may catch any one from the opposite side who has been out of goal longer than he has. Any Scout caught is conducted to the prison by his captor and must remain there until rescued by some one from his side, who touches him with the hand. The one who does this is subject to being caught like any other player.

21. Knot “Champ-Nit” Games

(two or more Patrols)

Within a Patrol, or between Patrols, knot tying contents may be arranged as a speed contest between pairs

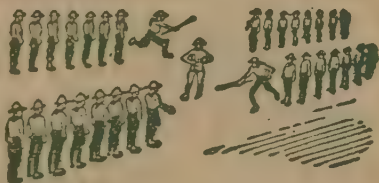
of Scouts or pairs of Patrols. The loser of each match is paired against other losers, until the "champion-loser" or "champ-nit" has emerged.

NOTE—From the view point of Patrol instruction of its members, such a contest is very valuable, as it gives the extra practice to those who need it most, and in addition it is "lots" of fun.

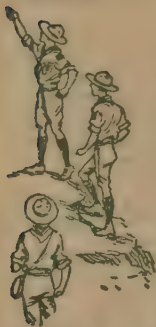
This "set-up" may be applied to Signaling, First Aid contests, and so on. These contests eliminate the winner and reveal who needs the training and practice.

22. Relay Games

Relay games are excellent for competition between Patrols (or between Troops). The carrying of some object by each of the line in turn can be varied in many ways.



It can be used with signaling. Signal the message carried by the runner before you carry one you have to the next "signaler-runner." Some light obstacle across the running space adds zest. Horse and Rider, First Aid carries, and Wheelbarrow Race may be variations.



23. Holding the Front (Patrol)

A very simple Patrol game for hiking. Any of the "followers" may ask the leader a nature question "what is that?" If he cannot answer, the leader up, and so on.

(II) Fun from Songs

1



America the Beautiful.

Katherine Lee Bates

(MATERNA)

Samuel A. Ward

1. O beau-ti-ful for spacious skies, For am-ber waves of grain, For pur-ple mount-ain
 2. O beau-ti-ful for pil-grim feet, Whose stern, im-pas-sioned stress A thor-ough-fare for
 3. O beau-ti-ful for he-roes-proved in lib-er-at-ing strife, Who more than self their
 4. O beau-ti-ful for patriot dream That sees be-yond the years Thine al-a-bas-ter

maj-es-ties A-bove the fruit-ed plain! A-mer-i-cal A-mer-i-cal God
 free-dom beat A-cross the wil-der-ness! A-mer-i-cal A-mer-i-cal God
 coun-try loved, And mer-cy more than life! A-mer-i-cal A-mer-i-cal May
 cit-ies gleam, Un-dimmed by hu-man tears! A-mer-i-cal A-mer-i-cal God

shed His grace on thee, And crown thy good with brotherhood From sea to shin-ing sea!
 mend thine ev-ry flaw, Con-firm thy soul in self-con-trol, Thy lib-er-ty in law!
 God thy gold re-fine, Till all suc-cess be no-ble-ness, And ev-ry grace di-vine!
 shed His grace on thee, And crown thy good with brotherhood From sea to shin-ing sea!

America

My country, 'tis of thee,
 Sweet land of liberty,
 Of thee I sing;
 Land where my fathers died,
 Land of the Pilgrim's pride,
 From every mountain side
 Let freedom ring.

My native country thee,
 Land of the noble free,
 Thy name I love;
 I love thy rocks and rills,
 Thy woods and templed hills;
 My heart with rapture thrills
 Like that above.

Let music swell the breeze
 And ring from all the trees
 Sweet freedom's song;
 Let mortal tongues awake,
 Let all that breathe partake,
 Let rocks their silence break,
 The sound prolong!

Our father's God, to Thee,
 Author of Liberty,
 To Thee we sing:
 Long may our land be bright
 With freedom's holy light;
 Protect us by Thy might,
 Great God, our King.

—Samuel F. Smith, 1832.

2

Star Spangled Banner

Francis Scott Key
With spirit (♩ = 104)

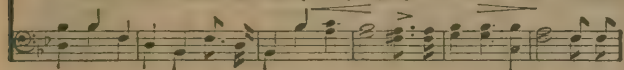
John Stafford Smith



1. O.... say! can you see, by the dawn's ear-ly light, What so proud-ly we hailed at the
2. On the shore, dim-ly seen thro' the mists of the deep, Where the foe's haughty host in dread.
3. O.... thus be it ev-er when, free-men shall stand Bo - tween their loved homes and the



twi- light's last gleam- ing? Whose broad stripes and bright stars, thro' the per- il - ous fight, O'er the
si- lence re- pos- es, What is that which the breeze, o'er the tow- er - ing steep, As it
war's des- o - la- tion! Blest with vic- t'ry and peace, may the heav'n-res-cued land Praise the



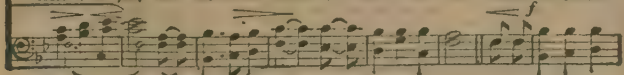
war-p'arts we watched, were so gal-lant- ly stream- ing? And the rock- ets' red glare, the bombs'
St - ful- ly blows, half con- ceals, half dis- clos- es? Now it catch- es the gleam of the
Pow'r that hath made and pre- served us a na- tion! Then, con- quer we must, when our



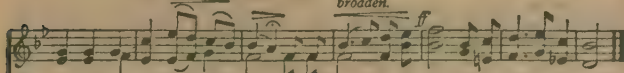
CHORUS. (♩ = 96)



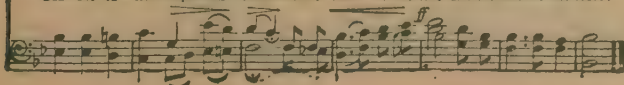
burst- ing in air, Gave proof thro' the night 'till our flag was still there. O.... say, does that
morn- ing's first beam, In full glo- ry re- flect- ed now shines on the stream: 'Tis the Star-span- gled
cause it is just, And this be our mot- to: "In God is our trust!" And the Star-span- gled



broaden.



Star-span- gled Ban- ner yet wave O'er the land of the free and the home of the brave!
Ban- ner, 'O long may it wave O'er the land of the free and the home of the brave!
Ban- ner in tri- umph shall wave O'er the land of the free and the home of the brave!



Law and Order

James A. Wilder

("IOLANTHE")

Arthur Sullivan

In moderate time with vigor

1. For sa - cred law from east to west, Our ban - ner bright shall wave, No
 2. Our ban - ner at the mil - i - tary, Pro - claims the ship a - far, And
 3. Let all the peo - ples here be - low Make law their guid - ing star, And
 4. Come! Scouts by land and Scouts by sea, For Law and Or - der stand, For

base de - sign shall flour - ish here A - gainst the land we all re - vere, Whose
 where it gleams a - cross the sea, Its ev - 'ry stripe cries 'Lib - er - ty,' And
 wrong shall per - ish at its birth Thro' - out the na - tions of the earth, Where
 God and Coun - try, Broth - er - hood, As loy - al hearts have ev - er stood In

men are strong and brave. Hold stead - y, then, our Flag shall stand For Law and Or - der
 "Jus - tice" ev - 'ry star. Stand by, my lads, true Lib - er - ty Is Law and Or - der
 Right and Jus - tice are! Let stain - less ban - ners be un - furled For Law and Or - der
 this our glo - rious land. Stand up! stand up! Good Scouts shall be Cru - sad - ers all for

on the land, In Freedom's name our Flag shall stand For Law and Or - der on the land
 on the sea, Yeo - hol Heave - ho! Our Flag shall be For Law and Or - der on the sea!
 thro' the world, Let stain - less ban - ners be un - furled For Law and Or - der thro' the world,
 Lib - er - ty; Stand up! stand up! Our pledge de - clare For Law and Or - der ev - 'ry - where!

Law and Order—Concluded

Chorus.

1-2-3 Last time

In Freedom's name our Flag shall stand For Law and Or-der on the Land.
Yeo-ho! heave-ho! our Flag shall be For Law and Or-der on the sea.
Let stain-less ban-ners be un-furled For Law and Or-der thro' the world.
Stand up! stand up! Our pledge de-clare For Law and Or-der ev-'ry - - where.

4

Didn't He Ramble!

Old Popular Song

1. We sing of Bil-ly the Wil-liam Goat, a beast.. of great ro - down;
He had a taste. for ram-bling in - to ev - er - y place in (Omit.....)
2. He ram-bled in - to the butch-er-shop, he ram - bled for some meat,
The butch-er-man. got sit - er him and ram-bled him on the (Omit.....)

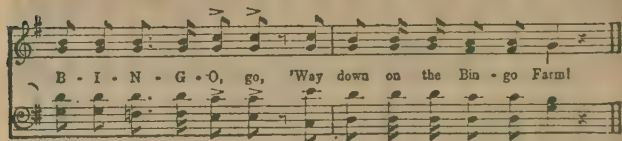
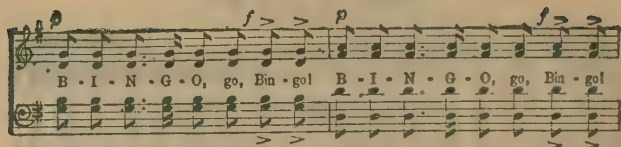
town. Oh, did-n't he ram - ble,..... ram - ble,.... He ram-bled all
street.

round,... In and out of town; Oh, did-n't he ram - ble,..... ram-

ble, He ram-bled till they had to cut him down.....
He ram-bled till the butch-er cut him down.....

(Bil - ly the Goat!)

Here's to B. S. A.—Concluded

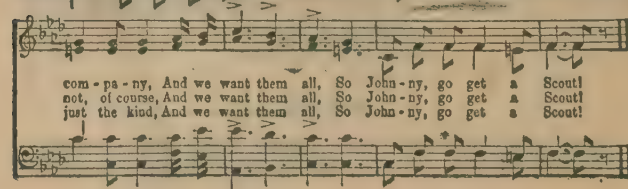
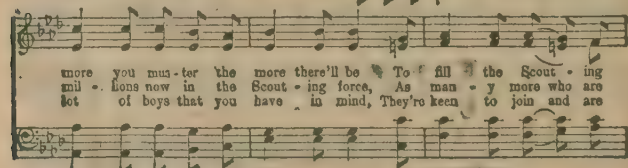
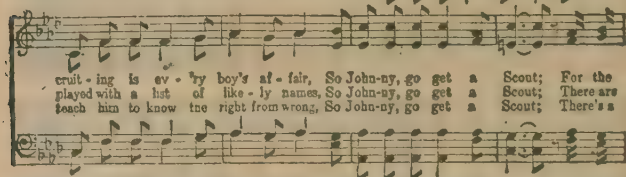
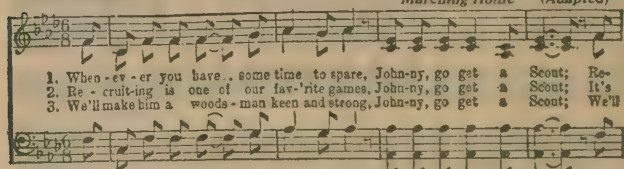


9

Johnny, Go Get a Scout

John Weston

(RECRUITING SONG) Tune: "When Johnny Comes Marching Home" (Adapted)



10

One of a Jolly Crew

Barton Bruley

Allegro Voice part not to be played.

Tune: "Son of a Gamboller"

Arr. by Harvey Worthington Loomis

1. Oh, I'm a scout-ing troop-er who roams the for-est through;.. I
 2. So all you coun-try fel-lows, and cit-y fel-lows, too, Why

R. H.

know my way by day-light and in the moon-light too,..... And
 don't you join in scout-ing as we are taught to do?..... And

if you'll on-ly fol-low, I'll show the way to you; I'm a
 when you get your out-fit, Your folks will say of you: He's a

typ-i-cal scout you've heard a-bout and one of a jol-ly crew. I'm
 typ-i-cal scout you've heard a-bout and one of a jol-ly crew. I'm.

FINE. CHORUS.

one of a, one of a, one of a, one of a, one of a jol-ly crew;.....

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One of a, one of a, one of a, one of a, one of a jol-ly crew; And

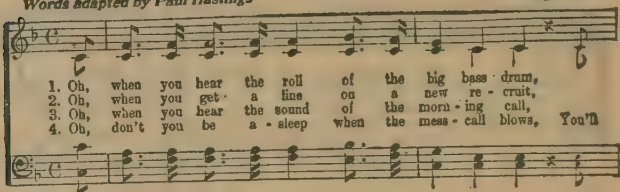
D.S. al Fine.

11

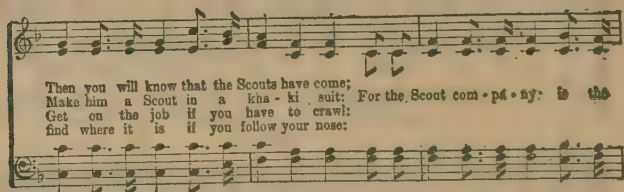
The Scout Company

Words adapted by Paul Hastings

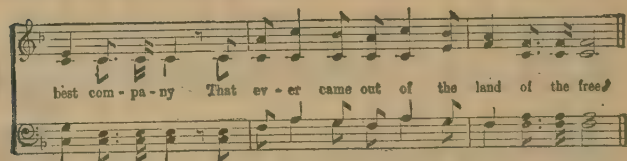
College Tune



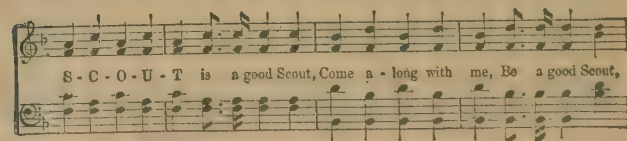
1. Oh, when you hear the roll of the big bass drum,
 2. Oh, when you get a line on a new re-cruit,
 3. Oh, when you hear the sound of the morn-ing call,
 4. Oh, don't you be a - sleep when the mess - call blows, You'll



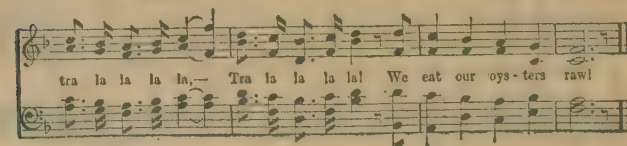
Then you will know that the Scouts have come;
 Make him a Scout in a kha - ki suit: For the Scout com - pa - ny: is the
 Get on the job if you have to crawl:
 find where it is if you follow your nose:



best com - pa - ny That ev - er came out of the land of the free



S - C - O - U - T is a good Scout, Come a - long with me, Be a good Scout,



tra la la la la, — Tra la la la la! We eat our oys - ters raw!

12

Prairie Flower

I'm a little prairie flow'r,
 Growing wilder ev'ry hour;
 Nobody cares to cultivate me,
 For I'm as wild as wild can be
 For I'm as wild as wild as wild can be. (Wow!)

13

Tramp, Tramp, Tramp.

Berton Braley

Tune: "Tramp, Tramp, Tramp!"

1. In the heart of ev-'ry Scout there is hon-or for the flag, And a
 2. In our work or in our play, in the cit-y or the glen, We are
 3. As we serve the Scout-ing law, so we serve our might-y land, And we

that of all its glo-ry of the past... And each Scout has made a vow that his
 build-ing up the bod-y and the brain... And we build the spir-it, too, which shall
 march a-long to-geth-er to the goal... With our bod-ies clean and strong, and our

faith will nev-er lag, He will serve that star-ry ban-ner to the last...
 make us in-to men Who can keep the flag for-ev-er with-out stain...
 minds that un-der-stand And a faith that holds us' loy-al, heart and soul...

Tramp, tramp, tramp, the Scouts are march-ing! Un-der smil-ing skies a - bove; By the
 Tramp, tramp, tramp, the Scouts are marching, marching! a - bove, a - bove;

red and white and blue We will hold forever true To the glo-ry of the country that we love...

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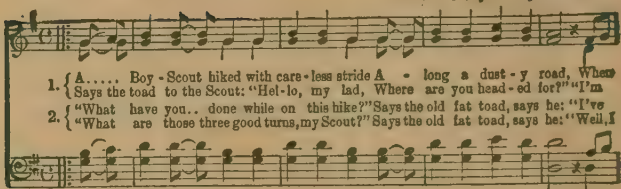
14

Ain't Got No Style

They say Mr. * * he ain't got no style;
 He has style all the while, He has style all the while;
 They say Mr. * * he ain't got no style;
 He has style all the while, he has style all the while.
 2. Smile all the while. 3. Pep ev'ry step.
 *Any Appropriate name.

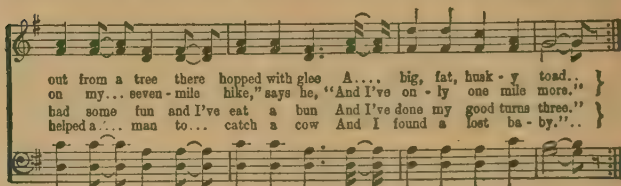
Three Good Turns

Tune: "Polly-Wolly-Doodle"



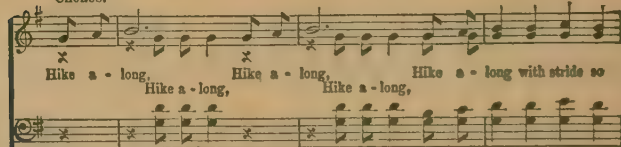
1. { A.... Boy - Scout hiked with care-less stride A - long a dust-y road, When
Says the toad to the Scout: "Hel-lo, my lad, Where are you head-ed for?" "I'm

2. { "What have you.. done while on this hike?" Says the old fat toad, says he: "I've
"What are those three good turns, my Scout?" Says the old fat toad, says he: "Well, I

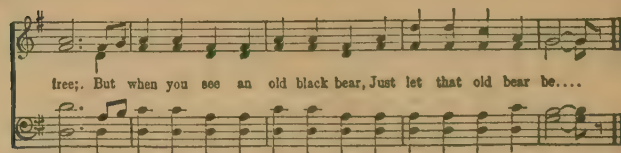


out from a tree there hopped with glee A... big, fat, husk-y toad.. }
on my... seven-mile hike," says he, "And I've on-ly one mile more." }
had some fun and I've eat a bun And I've done my good turns three." }
helped a... man to... catch a cow And I found a lost ba-by..." }

CHORUS.



Hike a - long, Hike a - long, Hike a - long, Hike a - long, Hike a - long with stride so
Hike a - long, Hike a - long, Hike a - long, Hike a - long,



free; But when you see an old black bear, Just let that old bear be...

Old MacDonald Had a Farm

Old MacDonald had a farm, E-I-E-I-O!

And on this farm he had some chicks, E-I-E-I-O!

With a chick-chick here and a chick-chick there.

Here a chick, there a chick, ev'rywhere a chick-chick.

Old MacDonald had a farm, E-I-E-I-O.

Second Verse—Substitute "ducks," "quack, quack."

Third Verse—Substitute "Turkey," "gobble, gobble."

Fourth Verse—Substitute "pigs," "heink, heink."

Fifth Verse—Substitute "Ford," "rattle, rattle."

(Each verse is sung to include all the preceding animals.)

17

Co-ca-che-lunk

Berton Braley

College Tune

1 When we start - ed in our scout ing, ten - der - foots as green 'as grass, We were slow and
 2 We were mixed on all our sig nals, we were lost in ev - 'ry wood, But we've learned a
 3 But we must - n't get con - cent - ed for 'our wise old Mas - ter Scout Says we have so
 4 Still, he tells us, we're im - prov - ing, tho' our wood - craft is a crime; If we keep for -

CHORUS
 we were stu - pid, but to - day we head the class.
 whole lot bet - ter now we think we're pret - ty good. Co - ca - che - lunk, che - lunk - che - lay - lee,
 lit - tie knowl - edge, ne's a - fraid to let us out.
 ev - er try - ing, we may have some sense in time.

International Copyright Secured

Co-ca-che-lunk-che-lunk-che-lay; Co-ca-che-lunk-che-lunk-che-lay-lee, Hi-ob, chicken, why don't you lay!

18 Battle Hymn of The Republic

Mine eyes have seen the glory of the coming of the Lord;
 He is tramping out the vintage where the grapes of wrath are
 stored;

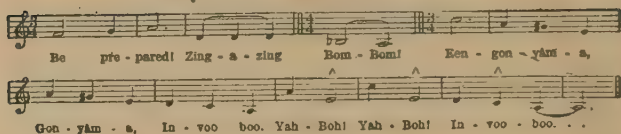
He hath loosed the fateful lightning of His terrible swift sword;
 His truth is marching on.

Glory! Glory Hallelujah!
 Glory! Glory Hallelujah!
 Glory! Glory Hallelujah!
 His truth is marching on.

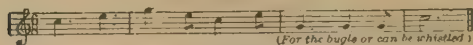
He has sounded forth the trumpet that shall never call retreat
 He is sifting out the hearts of men before His judgment seat,
 Oh, be swift, my soul, to answer Him! be jubilant, my feet!
 Our God is marching on.

19

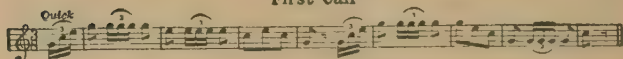
Bugle Calls The Scouts International Chorus



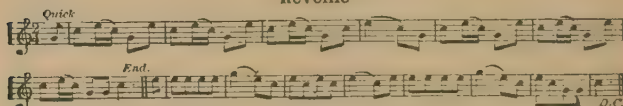
The Scouts' Call



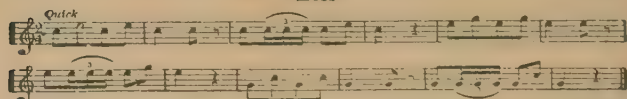
First Call



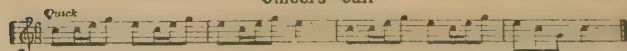
Reveille



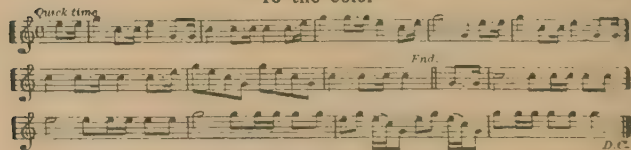
Mess



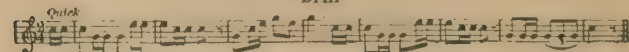
Officers' Call



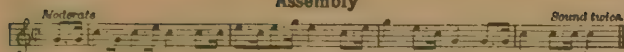
To the Color



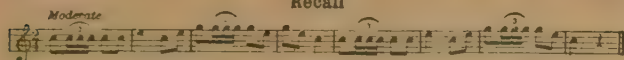
Drill



Assembly



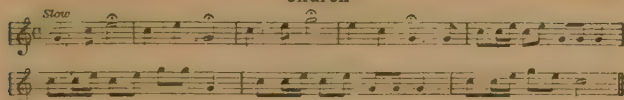
Recall



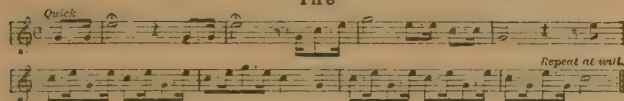
Fatigue



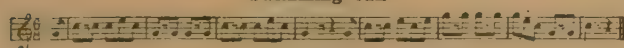
Church



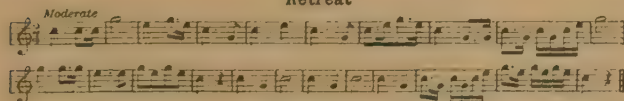
Fire



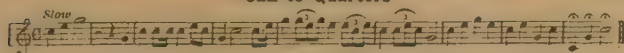
Swimming Call



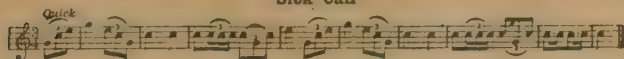
Retreat



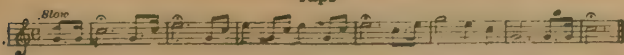
Call to Quarters



Sick Call



Taps



21

Old Kentucky Home

The sun shines bright in the old Kentucky home,
 'Tis summer, the darkies are gay;
 The corn-top's ripe, and the meadow's in the bloom,
 While the birds make music all the day.
 The young folks roll on the little cabin floor
 All merry, all happy and bright;
 By'n by hard times comes a-knocking at the door,
 Then my old Kentucky home, good night!

Chorus

Weep no more my lady,
 Oh, weep no more to-day!
 We will sing one song for the old Kentucky home,
 For the old Kentucky home, far away.

22

Dixie

I wish I was in de land of cotton,
 Old times they are not forgotten,
 Look away! Look away! Look away! Dixie Land.
 In Dixie land where I was born in,
 Early on one frosty mornin',
 Look away! Look away! Look away! Dixie Land.

Chorus

Oh I wish I was in Dixie,
 Hooray! Hooray!
 In Dixie Land I'll take my stand
 To live and die in Dixie.
 Away, away, away down south in Dixie

23

The Scout Prayer*(Tune—Marcheta)*

Our Father in Heaven above us, we ask thee
 For guidance in our daily task.
 May virtue and manhood stand strongly amongst us;
 To thee we give all of our thanks.
 The Scout Oath, the Scout Law,
 Their lessons unfolding
 To our youth in numbers untold.
 Our Motto; our "Good Turn";
 May we live and teach it,
 Great Spirit of Scouting, we pray!

By Tallman H. Trask and Oscar A. Mathews



(III) Fun from Books

By FRANKLIN K. MATHIEWS

Chief Scout Librarian, Boy Scouts of America

When George Young, seventeen-year-old Toronto Boy Scout, swam the Catalina Channel, he set a new world standard of physical endurance and athletic skill. In the 15 hours 45 minutes and 38 seconds, he swam thirty miles to cover the 23 mile channel. His own story was very simple: "I just kept going."

This heroic exploit recalls the story of an apprentice boy who goes dreaming down the street of a little, then unheard of, town in far away Missouri. Suddenly he pursues a scrap of paper flying in the wind. A nearby fence offers lodgment momentarily, where the boy eagerly overtakes it. The vagrant piece of paper turns out to be a book page about the fair Maid of France and her heroic deeds. Only a page it was, but enough to inspire a high resolution, which found fulfillment when the boy, becomes the man Mark Twain, writes "Joan of Arc," thought by many to be the best of all the books by the one American author well-known the world over.

Mark Twain and George Young have this in common—both made good use of their leisure time. The one, by taking his reading seriously enough, became a writer of world renown; the other, by taking his swimming seriously, became a world champion. Of course, they "had it in them," but if they had just swum or read,



for the fun of it, neither would have amounted to much.

This then is true, don't you think, that if you want to amount to something, do something in the world that will help your-

self and others, one good way is to take your fun, your pastimes, seriously enough to get out of them all that is in them.

And all this is true of your reading; which I suggest you take seriously. What does this mean? Read the books that are dull and stupid? Hardly, any more than



George Young's taking swimming seriously meant doing something dull and stupid. Swimming to him was pleasure, and he determined to get the most pleasure out of it, and very early learned that to do so is to learn by practice the best way to swim—the way that makes champions. It may be that the first time it is a bit difficult, but how is one to amount to anything unless one develops ability to conquer?

So it is in reading. We cannot get the real joy out of books by reading just "any old thing," any more than we get the joy out of swimming by swimming just "any old way." There is a best method in reading as there is a best method of swimming, and I know of no better way to tell you about the best method for reading than by suggesting a limited number of books. You know that in learning the best way to swim you have to master certain types of strokes, so it is in reading—you have to know certain types of books. There is the "easy to read" type of story—of adventure, or sea, or boy life or athletics—the story through which you skim carelessly,

thoughtlessly; the story to which you never think back with re-enjoyment, with another chuckle at the fun or another thrill at the excitement of climax, whose characters are merely names in a book, not friends whose acquaintance you are glad to have made. But from this inconsequential story that has no delightful after-taste you may move on to other stories that are not hard to read but which do leave in your mind and heart all these possibilities of later enjoyment. If you have read "Huckleberry Finn" and "The Story of a Bad Boy", you have doubtless laughed or sorrowed over the exploits or experiences of their heroes many times when the actual books were far from the touch of your hands. And surely you feel that you know the boys who live within their pages as you know your friends and schoolmates.



If you have read "Jim Davis" and "Bob, Son of Battle," "Captains Courageous" and "Men of Iron," doubtless the mere titles bring back something of that joy of having shared in high adventure, of having been a part of something fine, that you felt when you were in the thrall of actual reading. From such books as these you may move on to those outstanding books that have marched down the years triumphant—the classics, which every age has read and called great and you will not miss their greatness and power! You will appreciate their bigness. What a triumph to come, by natural progress in your "strokes," to read such books and be able to enjoy them; to make friends of the immortal minds of all the ages.



“Good Turn” Story Books



- (1) **The Boy Scout, and Other Stories.**
By Richard Harding Davis.
Very interesting.
- (2) **The Story of the Other Wise Man.**
By Henry van Dyke.
One of the most popular stories ever written.
- (3) **A Christmas Carol.**
The ghosts visit old Scrooge on Christmas Eve.
By Charles Dickens.
- (4) **Swiss Family Robinson.**
Everyone must do his share.
By Johann David Wyss.
- (5) **Billy Topsail with Doctor Luke of the Labrador.**
By Norman Duncan.
The story is founded on actual experiences in Labrador.
- (6) **Boy Scouts of the Lighthouse Troop.**
Tells of blind Scouts.
By F. Moulton McLane.
- (7) **The Story of the Champions of the Round Table.**
By Howard Pyle.

Boy Scout Stories

- (8) **Under Boy Scout Colors**
A story of Scout rescues.
By Joseph B. Ames.
- (9) **Don Strong of the Wolf Patrol.**
By William Heyliger.
- (10) **Don Strong, Patrol Leader.**
Among the most popular of Scout books.
- (11) **Boy Scouts of Bob's Hill.**
By C. P. Burton.
Boyish fun and frolic abound in every chapter.
- (12) **Boys of Bob's Hill.**
- (13) **Raven Patrol of Bob's Hill.**



- (14) **Bob's Hill Trails**
- (15) **Boy Scouts of Berkshire.**
Full of outdoor craft.
By Walter Prichard Eaton.
- (16) **The Hilltop Troop.**
What they did.
By Arthur Stanwood Pier.
- (17) **Troop One of the Labrador.**
Scouting in the Far North.
By Dillon Wallace.
- (18) **Tom Slade.**
By Percy Keese Fitzhugh.
- (19) **Roy Blakeley.**
- (20) **Pee-wee Harris.**
- (21) **Westy Martin.**
These Scout heroes are real.

Stories of Sports

- (22) **For the Honor of the School.** By Ralph Henry Barbour.



- (23) **The Half-Back**

Gripping Stories of playing squarely.

- (24) **Bartley, Freshman Pitcher.**

By Joseph A. Altsheler

Good baseball and fine ideals.

- (25) **Baby Elton, Quarterback.**

By Leslie W. Quirk.

A gripping story full of that fine sportsmanship which should possess all athletic contests.

- (26) **College Years.**

By Ralph D. Paine.

A fine, clean story, drawn from college activities at Yale.

- (27) **Maysfield's Fighting Five.**

By Harold M. Sherman.

The story of a famous basketball team.

Stories of the Great West



- (28) **The Horsemen of the Plains.**

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Stirring tale of a

boy's adventures with fur hunters in the Rockies in the late 60's.

- (29) **Scouting with Daniel Boone.** By Everett T. Tomlinson.

Adventure with one of our country's greatest Scouts and noblest pioneers.

- (30) **Scouting with Kit Carson.**

By Everett T. Tomlinson.

The story of a boy who shared with the great Scout the exciting and perilous frontier life.

- (31) **Ranche on the Oxhide.**

By Henry Inman.

Veritable "Swiss Family Robinson" story of pioneer life.

- (32) **The Boy Emigrants.**

By Noah Brooks.

Two boys of a poor western family strike out for themselves.

- (33) **Long Knives.**

By George C. Eggleston.

Story of George Roger Clark's expedition to Illinois at the time of the Revolution.

- (34) **Buffalo Bill and the Overland Trail.**

By Edwin L. Sabin.

An inspiring story of adventures.

Indian Stories

- (35) **Lone Bull's Mistake.**

By James Willard Schultz.

Story of an Indian who is banished from his tribe, but turns back to save it in time of danger.



- (36) **The Last of the Chiefs.** By Joseph A. Altsheler.
The story of two boys crossing the western plains with an Indian—the last of the chiefs—as guide.
- (37) **Last of the Mohicans.** By James Fenimore Cooper.
Uncas, "the last of the Mohicans," is the hero.
- (38) **The Young Trailers.** By Joseph A. Altsheler.
A story of the settlement of Kentucky.
- (39) **The Flamingo Feather.** By Kirk Munroe.
Adventures of a French boy among the Seminoles in Florida in the sixteenth century.

Animal Stories

- (40) **Animal Heroes.** By Ernest Thompson Seton.



Fascinating stories of wild and domestic animals.

- (41) **The Biography of a Grizzly.** By Ernest Thompson Seton.

A story real enough to have been written by another grizzly.

- (42) **The Call of the Wild.** By Jack London.

Story of wild life in the Klondike. The hero, a magnificent dog, finally obeys the "call of the wild" and relapses into savagery because his last and best friend was killed by the Indians.

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Vivid stories of wild animals, based on true experiences.

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One of the best dog stories ever written.

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A well told, true story of a lovable, loyal little Skye terrier.

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- (46) **Cruise of the Cachalot.** By Frank T. Bullen.

Whaling and adventure in the high seas.

- (47) **Jim Davis.**

By John Masefield.

Full of wild adventures, pursuits by hand and battles by sea.



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Captain Nemo's submarine craft and its cruises.

(51) Buccaneers and Pirates of Our Coast.

By Frank R. Stockton.

Full of daring and courageous acts, with strong lesson in ultimate fate of all pirates.

(52) The Mutineers.

By Charles Boardman Hawes.

A tale of old days at sea.

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A tale of a villain and his pursuit by an injured boy relative and a dare-devil stranger.

(54) Ungava Bob

By Dillon Wallace.

Really admirable.

(55) The Cruise of the Dazzler.

By Jack London.

London's best boy's book based on his own boyhood adventures.

(56) Huckleberry Finn.**(57) The Adventures of Tom Sawyer.**

By Mark Twain.

Two of the most famous books ever written about boys and for boys.

(58) Brown Wolf and Other Stories for Boys.

By Jack London.

Twelve very varied short stories by this popular writer.

(59) The Ransom of Red Chief and Other Stories for Boys.

By O. Henry.

A collection of twenty-five "O. Henry" stories.

(60) Captains Courageous.

By Rudyard Kipling.

A young, rich and spoiled boy falls overboard from an Atlantic liner and is picked up by fishermen bound for a season's catch off the coast of Newfoundland. The rude fishermen make a man of him, then restore him to his anxious parents.

(61) Hans Brinker.

By Mary Mapes Dodge.

The story of a Dutch boy who, through his courage and devotion, is able to restore his father's health.

Historical Stories**(62) Redcoat and Minute Man.**

By Bernard Marshall.

Story of Revolutionary times.

(63) The King's Powder.

By A. T. Dudley.

A story of two New Hampshire boys in the pre-Revolutionary War struggles of the colonists.



- (64) **Guns of Bull Run.** By Joseph A. Altsheler.
Thrilling story of the Civil War.
- (65) **The Silent Scot.** By Constance Lindsay Skinner.
Andy McPhail, a boy of Revolutionary times.
- (66) **The Scarlet Cockerel.** By C. M. Sublette.
A good adventure tale based on one of the early attempts to found a French Huguenot colony in the Carolinas.
- (67) **A Boy of the Lost Crusade.** By Agnes D. Hewes.
A really charming story which pictures Catholic, Jew and Moslem in friendships at a time when prejudice and feeling ran high.
- (68) **Men of Iron.** By Howard Pyle.
A romance of chivalry, the scene in England in the days of King Henry IV.
- (69) **Tale of Two Cities.** By Charles Dickens.
Story of the French Revolution and the reign of terror. The uprising of the Parisian mob against the aristocrats and the horror of mob rule described by an eye-witness.
- (70) **The White Company.** By Sir A. Conan Doyle.
An ideal combination of famous artist with famous author in a tale of the merry days of Edward III and the venturesome Black Prince.
- (71) **Black Arrow.** By Robert Louis Stevenson.
A story of the War of the Roses.
- (72) **Scottish Chiefs.** By Jane Porter.
Romantic tale of which Wallace, the highly idealized champion of Bruce's fortunes, is hero. The setting is Scotland in the 13th-14th centuries.
- (73) **The White Cockade.** By Charles Gilson.
Stirring tale of the French Revolution telling of the discovery of the long lost son of an aristocrat in the child of the slums.
- (74) **Martin Hyde, the Duke's Messenger.** By John Masfield
Martin, through boyish curiosity, investigates the "ghosts" in the house next door and is drawn into the service of the Duke.
- (75) **The Three Musketeers.** By Alexandre Dumas.
The three musketeers meet with plenty of thrilling adventures.
- (76) **Quentin Durward.** By Sir Walter Scott.
The scene is laid in France during the reign of Louis XI.
A very popular book with older boys.



True Stories



- (77) **Daniel Boone, Wilderness Scout.** By Stewart Edward White.

A beautifully written biography of Boone.

- (78) **The Last of the Plainsmen**
By Zane Grey.

Life story of Buffalo Jones.

- (79) **On the Trail of Washington**
By Frederick Trevor Hill.

The story of Washington not as a dignified President but as a boy and young man.

- (80) **On the Trail of Grant and Lee.** By Frederick Trevor Hill.

Life stories simply told with occasional extremely dramatic passages.

- (81) **Boy's Life of Roosevelt.** By Hermann Hagedorn.

Very popular when published in "Boys' Life," the Boy Scouts' magazine.

- (82) **Boy's Life of Edison.** By William H. Meadowcroft.

The author was associated with Edison for years.

- (83) **Heroes of Today.** By Mary Roberts Parkman.

The author presents such men as Muir, Burroughs, Grenfell, Captain Scott, Riis, Trudeau, etc.

- (84) **Boy Scout's Life of Lincoln.** By Ida M. Tarbell

The life of our best beloved American presented as splendidly exemplifying the Scout Oath and Law.

- (85) **The Story of Grenfell of the Labrador.**

By Dillon Wallace.

Readers of Wallace's popular stories will like this biography of Labrador's benefactor.

- (86) **Careers of Danger and Daring.** By Cleveland Moffett.

Stories of the lives of the diver, the balloonist, the fireman, the locomotive engineer, and others whose daily occupations require courage and presence of mind.

- (87) **Masters of Science and Invention.** By Floyd L. Darrow.

Brief interesting excursion into scientific discovery.

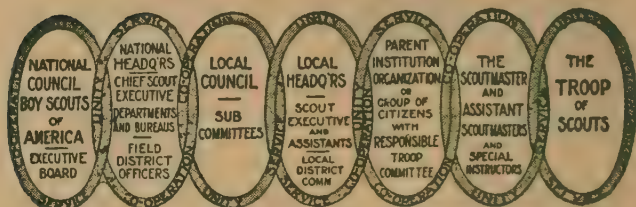
- (88) **The Boyhood of Abraham Lincoln.** By J. Rogers Gore.

The narrative of Lincoln's boy chum in Kentucky.

Part VII.—Appendix

CHAPTER I

THE SCOUTING MOVEMENT



The Scouting Chain

The Scouting Movement is a locally organized, nationally aided and protected effort on the part of over 175,000 men in the United States to enrich the lives of boys. Back of the Scouting Troop meeting and the Uniform and Badge and the Oath and Law, is a great organization of interested men GIVING their time, most of them, as Scouting has only about 1,000 paid men to serve and help these volunteers.

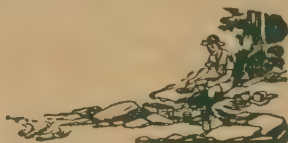
The Scout Movement is non-sectarian, non-political, non-commercial. It has been chartered by Congress as a leisure time educational program for Boys. Back of these boys are many men to serve as friends to them.

BACK of the

Scouts and their junior officers—are
Scoutmasters and their assistants—then

The Troop Committees—then

The parent Institutions (Church, etc.,) —then





The Local Councils and their Committees—then

The Regional Supervisory Service Men—and then

The Committees of the National Council.

The National Council is the controlling body of the Movement and its membership is derived mainly from the local organizations, and then by Act of Congress, this National Council controls the standards of Scouting in the United States. It meets annually and its Executive Board meets monthly throughout the year except during July, August and September.

The Local Council in any City is composed of representatives of EVERY parent institution and also enough members chosen at large in the City, to have all religious and civic groups represented.

A democratic organization indeed! Then this Council elects one or more members (depending on the number of Scouts) as delegates to the National Council, which by Congressional Charter is the controlling body of the Movement.

The following are the officers of the Boy Scouts of America, 1930-1931:

Honorary President—Herbert Hoover

Honorary Vice-President—Calvin Coolidge

Honorary Vice-President—Colin H. Livingstone

Honorary Vice-President—Daniel Carter Beard

Honorary Vice-President—William G. McAdoo

President: Mortimer L. Schiff, Oyster Bay, N. Y.

Vice-President: Walter W. Head, Chicago, Ill.

Vice-President: Charles C. Moore, San Francisco, Cal.

Vice-President: Bolton Smith, Memphis, Tenn.

Vice-President: John Sherman Hoyt, New York, N. Y.

Vice-President: Clarence H. Howard, St. Louis, Mo.

National Scout Commissioner: Daniel Carter Beard, Suffern, N. Y.
 International Commissioner: Mortimer L. Schiff, Oyster Bay, N. Y.

Treasurer: George D. Pratt, Brooklyn, N. Y.

Chief Scout Executive: James E. West, New York, N. Y.

Deputy Chief Scout Executive: George J. Fisher, New York, N. Y.

Executive Board Members

TERM EXPIRES 1932

Bruce Barton
 Barron Collier
 Charles E. Cotting
 W. H. Cowles
 Marshall Field
 Clarence H. Howard
 Colin H. Livingstone
 John M. Phillips
 Philip L. Reed
 Victor F. Ridder
 Theodore Roosevelt
 Daniel A. Tobin
 John P. Wallace
 Frank W. Wozenraft

TERM EXPIRES 1933

Dr. Cyrus D. Adler
 Daniel Carter Beard
 Henry Bruère
 Alfred W. Dater
 Stuart W. French
 Lewis Gawtry
 Walter W. Head
 Parmely Herrick
 Kenneth O'Brien
 George D. Pratt
 Mortimer L. Schiff
 Robert P. Sniffen
 Charles L. Sommers
 Mell R. Wilkinson

TERM EXPIRES 1934

L. W. Baldwin
 Dr. John H. Finley
 Fred J. Fisher
 Howard F. Gillette
 Frank G. Hoover
 John Sherman Hoyt
 Hon. Frederic Kernochan
 Charles C. Moore
 William D. Murray
 Frank Presbrey
 G. Barrett Rich
 Bolton Smith

Membership in the National Council is limited to American citizens whose service in Scouting is entirely voluntary.

Persons engaged professionally in Scout work in any form shall be ineligible to membership in the National Council.



The Executive Board



The National Council at its Annual Meeting elects one-third of its Executive Board, of not less than thirty nor more than forty-five members, which Board, with its Executive Officers, is charged with the responsibility for all questions of business administration and supervision.

It grants charters and credentials, copyrights insignia, determines equipment, publishes literature, provides National Court of Honor, protects the Movement from ex-



ploitation and cooperates with civic authorities in developing the program of Service.

The Executive Board works through an employed staff of officials under the leadership of a Chief Scout Executive.

National Staff

The National Staff of the Boy Scouts of America is organized in four Divisions as follows:

1. **Program Division**, responsible for the following functions: Editorial, including the editorial management of all publications excepting BOYS' LIFE, preparation of handbooks, manuals and pamphlets, review of all forms and mimeographed and printed material; Educational, including promoting and developing programs for leadership training, for Training Conferences and Seminars; Publicity, including promoting public acquaintance and stimulating public interest; Reading Program, including reviewing fiction for boys, and promoting the reading of wholesome books; Relationships, cultivating an interest in Scouting; Research, conducting scientific studies and experiments concerning Scouting techniques.

2. **Operations Division**, responsible for the following functions: Field Service, extending the Boy Scout Movement, the chartering of Local Councils, organizing and supervising Local Council work; Camping, including developing plans and maintaining standards for, and supervising Boy Scout Camps; promoting standards of Health and Safety; Inter-Racial Service; a membership registration system; Rural Scouting; the Sea Scout Program.

3. **Personal Division**, responsible for the development of the program for personnel policy and administration affecting both professional and volunteer service of the Boy Scouts of America.

4. **Business Division**, responsible for the following functions: The Supply Service, licenses and royalties, protecting the Boy Scouts of America against unauthorized use of its name or distinctive words or insignia; business management; business procedure, purchase of all office supplies and equipment for the National Office.

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 International Commissioner: Mortimer L. Schiff, Oyster Bay, N. Y.

Treasurer: George D. Pratt, Brooklyn, N. Y.

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 Robert P. Sniffen
 Charles L. Sommers
 Mell R. Wilkinson

TERM EXPIRES 1934

L. W. Baldwin
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 John Sherman Hoyt
 Hon. Frederic Kernochan
 Charles C. Moore
 William D. Murray
 Frank Presbrey
 G. Barrett Rich
 Bolton Smith

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EXECUTIVE OFFICERS AND STAFF MEMBERS OF THE NATIONAL COUNCIL

President.....	Mortimer L. Schiff
National Scout Commissioner.....	Daniel Carter Beard
International Commissioner.....	Mortimer L. Schiff
Treasurer.....	George D. Pratt

ADMINISTRATION

Chief Scout Executive.....	Dr. James E. West
Deputy Chief Scout Executive.....	George J. Fisher, M.D.
Secretary to the Chief Scout Executive.....	E. H. Vitalius
Assistant to the Chief Scout Executive.....	George W. Ehler
Statistician.....	E. D. Partridge
Comptroller.....	F. S. Pease
Cashier.....	A. E. Perelson

DIVISION OF PROGRAM

Director.....	E. Urner Goodman
---------------	------------------

Editorial

Director of Publications and Editor of SCOUTING.....	E. S. Martin
Assistant Director.....	G. S. Ripley
Assistant to the Director.....	M. R. Greene
Assistant to the Director.....	A. Hemler
Assistant to the Director.....	William Hillcourt
Staff Artist.....	Leonard Russell
Staff Artist.....	G. W. Goddard, Jr.

Education

Director.....	Ray O. Wyland
Director of Professional Training.....	J. P. Freeman
Director of Volunteer Training.....	G. H. Berg
Assistant to the Director of Volunteer Training.....	Charles F. Smith

Library

Chief Scout Librarian.....	Franklin K. Mathiews
Acting Director.....	F. N. Cooke, Jr.

Publicity

Director.....	F. N. Robinson
---------------	----------------

Younger Boy Character Education and Research

Research Executive.....	Dr. H. W. Hurt
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DIVISION OF OPERATIONS

Director.....	Arthur A. Schuck
Assistant Director.....	Charles N. Miller
Assistant to the Director.....	D. W. Lawrence
Director Inter-Racial Activities.....	Stanley A. Harris

REGIONAL SCOUT EXECUTIVES

Field

Ralph H. Nodine.....	Region 1	Walter M. Kiplinger.....	Region 7
Gilbert H. Gendall.....	" 2	Fred G. Davie.....	" 8
Roy F. Seymour.....	" 3	James P. Fitch.....	" 9
Dwight M. Ramsay.....	" 4	Paul H. Love.....	" 10
Harold W. Lewman.....	" 5	John H. Piper.....	" 11
Kenneth G. Bentz.....	" 6	Carl J. Carlson.....	" 12

Camping

Director	L. L. McDonald
Assistant Director	W. C. Wessel
Director of Swimming and Water Safety	Fred C. Mills
Camp Engineer	Harvey A. Gordon

Sea Scouting

Director	Thomas J. Keane
----------------	-----------------

Rural Scouting

Director	O. H. Benson
Assistant to the Director	M. V. Lowerre

Registration

Director	Donald Monroe
----------------	---------------

DIVISION OF PERSONNEL

Director	H. F. Pote
Welfare Supervisor	M. A. Ryan

DIVISION OF BUSINESS

Director	George D. Porter
----------------	------------------

Supply

Director	C. H. Littlejohn
Assistant Director (Protection of Titles)	F. N. Cooke, Jr.
Assistant to the Director (Sales Promotion)	M. J. Vignate
Assistant to the Director (Credits and Collections)	Harold Haddock
Assistant to the Director	Milton Weber
Assistant to the Director	A. T. Hudson
Assistant to the Director (Trading Post)	Charles Wendling

Scout Literature Service

Director	H. R. Alpaugh
----------------	---------------

Office Management

Office Manager	W. C. Crosby
Assistant to the Office Manager	Roy H. Chamberlain

Purchaser of Printing

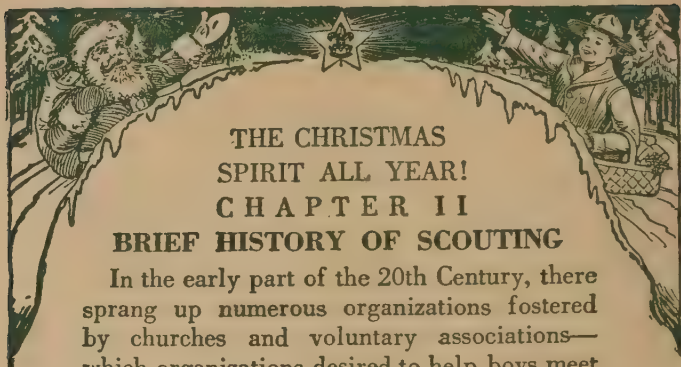
Purchaser of Printing and Office Supplies	W. W. Hamilton
Assistant	A. E. Schmidt

BOYS' LIFE (Editorial)

Editor-in-Chief	Dr. James E. West
Associate Editor	Daniel Carter Beard
Associate Editor	Franklin K. Mathiews
Assistant Editor	Myron M. Stearns
Assistant Editor	N. T. Mathiews
Assistant Editor	E. O'Connor
Assistant Editor	F. N. Robinson
Art Editor	Francis J. Rigney

BOYS' LIFE (Business)

Advertising Manager	P. W. Willson
Assistant Advertising Manager	V. E. Carroll
Assistant Advertising Manager (Scouting)	C. F. Jackson
Western Advertising Manager	John D. Emrich
Assistant Western Advertising Manager	Kirkwood Sampson
Director Field Promotion	L. M. Sandefur
Circulation Manager	H. O'Hanlon



**THE CHRISTMAS
SPIRIT ALL YEAR!
CHAPTER II
BRIEF HISTORY OF SCOUTING**

In the early part of the 20th Century, there sprang up numerous organizations fostered by churches and voluntary associations—which organizations desired to help boys meet the problems of leisure.

In 1907 Lord Baden-Powell (then General) conducted an experimental boys' camp at Brownsea Island out of which grew the plan for a boy's program which he outlined in "Scouting for Boys" and which is the basis of the British Boy Scouts' Association, which he founded. Lord Baden-Powell was in 1920 made Chief Scout of the World.

The "Good Turn" done by the "Unknown English Scout" to Mr. W. D. Boyce (See pages 17 and 18) led Mr. Boyce, Edward S. Stewart and Stanley Willis, on February 8, 1910, to incorporate THE BOY SCOUTS OF AMERICA under the laws of the District of Columbia.



Lord Baden-Powell

Believing that a Federal Incorporation would serve boys better, the following incorporators were named in House of Representatives Bill No. 24747:

Frank W. Gunsaulus, Charles H. Stoddard, Roy O. West, of Chicago; E. J. Spencer, Wm. H. Thompson of St. Louis; Wm. J. Starr, of Madison, Wis.; James Gordon, of Okolona, Miss.; John A. Brashear, of Allegheny, Pa.; John J. Lentz, Columbus, O.; and Colin H. Livingstone, Washington, D. C.

The following official quotation, from the U. S. House

of Representatives Committee on Education report of that bill clearly states that the purpose of the Movement is to produce a **CIVIC ENTHUSIASM** for service in a nation that means to live at peace with all the world.

"The purpose of the Boy Scouts of America is just this: 'To inflame the civic temper,' to develop the virile virtues in a nation that means to live at peace with all the world."

But it is true:

"If you are going to do anything for the average man you have got to begin before he is a man. The chance of success lies in working with the boy, not the man."—Theodore Roosevelt.

"Save a man, you save one person; save a boy and you save a whole multiplication table."—John Wanamaker.

"The boys of the nation are full of enthusiasm and spirit, and only want their heads to be turned the right way to become good, useful citizens. * * * They want a hand to guide them at the crisis of their lives when they are at the crossroads where their futures branch off for good or for evil."—Lieutenant-General Baden-Powell.

"The purpose of the Boy Scouts of America is to utilize the boy's leisure time under competent and sympathetic leadership, to popularize a large number of outdoor games and occupations of various sorts in which each boy can have a full share, and to provide the incentive that will attract and hold the boys by means of a compact, well-organized national body. It is the purpose to supplement all existing educational advantages and not to replace any of them."

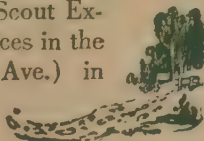
Early in the summer of 1910, a conference was held of the representatives of 37 different organizations interested in boys and out of that came a permanent organization. President Taft became Honorary President; Col. Theodore Roosevelt, Honorary Vice President and Chief Scout Citizen; Hon. Gifford Pinchot became Chief Scout Woodsman and Ernest Thompson Seton, Chief Scout. Daniel Carter Beard, Adj. Gen. Wm. Verbeck and Col. Peter S. Bomus were elected National Scout Commissioners.

The first Executive Board consisted of:

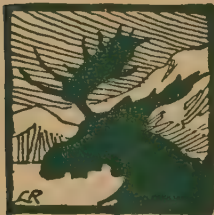
Colin H. Livingstone, Chairman

W. D. Boyce	Geo. D. Pratt	Seth S. Terry
W. D. Murray	Mortimer L. Schiff	Lucien T. Warner
Frank Presbrey	Lee F. Hanmer	E. M. Robinson
Daniel Carter Beard	Adj. Gen. Wm. Verbeck	
Ernest Thompson Seton	Col. Peter S. Bomus	

These men later selected the chief Scout Executive James E. West who opened offices in the Fifth Avenue Building (200 Fifth Ave.) in New York City.



It was perfectly natural that Scouting should become an outstanding proponent of out-door life, with such men as Theodore Roosevelt, Gifford Pinchot, Dan Beard, and Ernest Thompson Seton among its officials. Its leadership also explains its activity in character building and good citizenship. The Board stood for those precise things.



They carried on creative work on literature, on standards, on organization, building the American Oath and Law. These documents were then submitted to the College Presidents of the Country for criticism. **AND SCOUTING WAS ON ITS WAY.**

On June 15, 1916, the U. S. Congress granted a Federal Charter.

1910

Incorporated February 8th under the laws of District of Columbia by W. D. Boyce, and opened National Headquarters at International Y. M. C. A. office, 124 East 28th St., New York, N. Y. President Taft accepted office of Honorary President. Theodore Roosevelt, Honorary Vice-President and Chief Scout Citizen. Mr. Colin H. Livingstone elected President; Messrs. Mortimer L. Schiff, Milton A. McRae, Benjamin L. Dulaney, Vice-Presidents; Mr. George D. Pratt, Treasurer. Mr. Daniel Carter Beard, National Scout Commissioner, Ernest Thompson Seton, Chief Scout. Messrs. John Sherman Hoyt, Dr. Jeremiah W. Jenks, William D. Murray, Frank Presbrey and G. Barrett Rich, members of the Executive Board. A promotional meeting held June 21, with representatives of 34 National organizations. Mr. James E. West was appointed Executive Officer.

1911

National Council established at 200 Fifth Ave., January 2, 1911, by Mr. West with 7 employees. First Annual Meeting held at the White House, Washington, addressed by President Taft. First edition of the Handbook printed. Scout Oath, Law and Badge and fundamental policies adopted. Membership during year—Scouts and Scouters, 61,495.

1912

Scouts enrolled from every State. Scouts mobilized for first of series of National Civic Good Turns, the promotion of a safe and sane Fourth of July. Clean-up campaigns and similar community good

turns begun. Sea Scouting begun, to become an older Scout activity. "Boys' Life" purchased to become official magazine. Membership during year—Scouts and Scouters, 98,647.

1913

President Wilson became Honorary President. Local supervision facilitated by dividing the United States into 8 districts, the forerunner of our present 12 regions. Official bulletin for Scouters "Scouting," created. Membership registration system adopted. Scouts demonstrated Motto, "Be Prepared" in first aid during spring floods in Ohio and Indiana. Handbook for Scoutmasters published. Service at G. A. R. Reunion at Gettysburg. Membership during year—Scouts and Scouters, 114,882. Net membership, December 31st, 34,944.

1914

Troop Committee plan created. Training for Scouters begun. Gold medal for conservation of wild life offered Scouts by Dr. William T. Hornaday, director of the New York Zoological Park. Membership during year—Scouts and Scouters, 148,227. Net membership, December 31st, 132,741.

1915

Department of Education established. Expansion of Merit Badge Work prompted issuance of 57 Merit Badge pamphlets. Good Turns on Christmas and Thanksgiving stressed. Movement began receiving commendation of national organizations and men high in national life. Membership during year—Scouts and Scouters, 262,043. Net membership, December 31st, 182,303.

1916

Received a Federal charter from Congress which gave special protection to the name, insignia, and limits membership to American citizens. Act of Congress June 3, authorized a Scout uniform similar to Army, Navy, or Marine uniform. Adopted Constitution and By-Laws. Began to serve Government in the war. Educational value of the program officially recognized by Dean Russell of Teachers College, Columbia University. Membership during year—Scouts and Scouters, 344,290. Net membership, December 31st, 245,073.

1917

Full resources placed at service of Government, under slogan "Help win the war." Within 24 hours Scouts throughout the United States were advised of action. Tremendous demonstration of boy power trained and organized for service, followed for the duration of the war, and drew thousands of boys into the Movement, Scouts

sold 2,350,977 Liberty Loan bonds, totaling \$147,876,962; war stamps to a value of \$53,043,698; located 20,758,660 board feet of walnut, and the equivalent of a hundred carloads of fruit pits. Over 30,000,000 pieces of Government literature distributed and ceaseless service rendered in other ways, including food and fuel conservation; Boy Scout gardens by the thousand springing up all over the country. The Veteran Scout classification was established for those in the Movement five years or longer. Membership during year—Scouts and Scouters, 498,167. Net membership, December 31st, 356,609.

1918

War service at its peak. After signing of armistice we adopted the slogan, "The war is over, but our work is not." Scouts rendered Nation-wide first aid service in influenza epidemic. Rotary Clubs started present cooperation by business men's clubs and other institutions in sponsoring Troops. Membership during year—Scouts and Scouters 599,518. Net membership, December 31st, 420,006.

1919

The first National Boy Scout Week to promote the Movement throughout the country, conducted under the leadership of Hon. William G. McAdoo and inaugurated by proclamation of the President of the U. S. Proclamations from most of the governors. Systematic method for developing cooperation from churches of all faiths adopted. Scouts invited to aid Department of Labor in its Americanization program. Anniversary week observed as a good turn week by the public. Following the death, on January 6, 1919, of Theodore Roosevelt, Chief Scout Citizen, Scouts began the practice of annually planting Roosevelt memorial trees, and making an annual pilgrimage to his grave at Oyster Bay under the leadership of Daniel Carter Beard, National Scout Commissioner. Membership during year—Scouts and Scouters, 680,088. Net membership, December 31st, 462,781.

1920

First national conference of Scout Executives held in September at Palisades Interstate Park. First International Scout Jamboree held in England in July, Boy Scouts from 32 out of 52 countries represented, the Boy Scouts of America by 301. First International Scout Leaders' conference held in connection with Jamboree. International Scout Commissioner Mr. Mortimer L. Schiff and others represented the B.S.A. Quota plan adopted. Membership during year—Scouts and Scouters, 780,170. Net membership, December 31st, 503,726.

1921

President Harding became Honorary President of the B.S.A. Scouts of Washington, D. C., served as aids and guides at the Limit-

ation of Arms Conference. Inauguration of annual Eastern States Exposition at Springfield, Mass., where 5 Scouts selected on merit from each of the 10 Eastern States are entertained as guests, give demonstrations in Scout craft, and serve as aids to the authorities. New York Times inaugurated its Sunday edition Boy Scout section. Outstanding civic good turns in forest conservation and in connection with the Knickerbocker Theatre disaster at Washington and floods at Pueblo, Colo., and San Antonio, Texas. Membership during year—Scouts and Scouters, 620,314. Net membership, December 31st, 530,203.

1922

Winter camping loomed up as a competitor with summer camping for popularity. Second International Conference of Scout Leaders appointed a permanent International Committee upon which the B. S. A. was represented by Mr. Mortimer L. Schiff, International Scout Commissioner, and Mr. Frank Presbrey. International Scouting good will evidenced by Capt. Francis Gidney, Chief Camp Master of the British Boy Scouts Association, attending the biennial conference of Scout Executives in this country, the Scouting authorities in France in sending Monsieur J. Guerrin-Desjardins, and Canada, Mr. John Stiles. Five Year Field Development Program adopted. Big membership round-up, running over into following year, resulted in the addition of 81,123 Scouts and 20,235 officials, bringing the total to 614,465 boys and men. This effort stimulated by streamer awards by President Harding for Troop and Council increases of 25 per cent and over. Membership during year—Scouts and Scouters, 744,009. Net membership, December 31st, 614,465.

1923

Scouts participated in the country-wide tribute to the memory of President Warren G. Harding. Calvin Coolidge became Honorary President. Procedure approved by which Scouts with insurmountable physical disabilities can qualify for Merit Badges. International left-hand clasp adopted. Patrol Leader conferences and training courses for Scout Leaders developed. Laura Spelman Rockefeller Memorial advanced \$100,000 for promotion of "Boys' Life." Mr. James E. West became editor-in-chief. The Bureau of Church Relations established. Lone Scouts of America merged. Inauguration of patriotic pilgrimages to the homes of great Americans and to historic spots. Membership during year—Scouts and Scouters, 812,444. Net membership, December 31st, 661,452.

1924

"Every Scout a Swimmer" campaign begun. First achievement badges awarded to physically handicapped Scouts. Third International Conference of Scout Leaders attended by representatives of 33 Scout Associations. Second International Jamboree held at Copen-

hagen, Denmark. Third Biennial Scout Executives' conference held at Estes Park, Colo., adopted increased cooperation with the churches, with the home, and Scout Leaders from the ranks. Membership during year—Scouts and Scouters, 925,353. Net membership, December 31st, 696,420.

1925

On January 5, 1925 the Boy Scouts of America lost a true friend in the death of Sigmund Eisner, the official National Scout Outfitter. James J. Storrow, of Boston, elected President. First National Training School for Executives. Silver Buffalo Awards authorized for distinguished service to boyhood. Outstanding service rendered by Scouts in Illinois tornado, California earthquake and Louisiana fire. Harmon Foundation Awards. Delegation from Boy Scouts of America visited South America to further Scouting there. Membership during year—Scouts and Scouters, 1,006,586. Net membership, December 31st, 756,857.

1926

President James J. Storrow died in March. Milton A. McRae, Vice-President, elected to fill his term. At Annual Meeting in May, Walter W. Head was elected President. Sir Robert Baden-Powell, Chief Scout of the World, attended the Annual Meeting and made a trip throughout the country inspecting Scout Centers. The Award for Distinguished Service to Boyhood, the Silver Buffalo, was first presented at this meeting. Twenty-two awards were made, the first to Sir Robert Baden-Powell, the second to the Unknown Scout whose Good Turn brought Scouting to America. The Fourth International Scout Conference held at Kandersteg, Switzerland. Fourth Biennial Conference of Scout Executives held at Hot Springs, Arkansas. Executive Board authorize development of program for younger boys. Exceptional Scout service in Florida hurricane and Arkansas flood zones. Membership during year—Scouts and Scouters, 1,073,025. Net membership, December 31st, 811,268.

1927

Eagle Palms for Merit Badges added to the list of awards. Twelve new Agriculture Merit Badges added, making a total of eighty-nine. First printing of the new Handbook for Boys in November. Service Library of publications for the Field created. Two new manuals, the How Book and Winter Camp Manual issued. The class of Honorary Scout was authorized and twenty-two Honorary Scouts elected, among them Col. Charles A. Lindbergh. Eight Sea Scouts taken on the Borden-Field Museum Expedition to the Bering Sea. A fund of \$50,000 for younger boy program secured, and committee organized. Exceptional service rendered by Scouts in Mississippi and Vermont flood disasters and St. Louis tornado. Membership during year—

Scouts and Scouters, 1,169,413. Net membership, December 31st, 814,481.

1928

First fifty-two Harmon Foundation Awards were made in February, 1928, on the basis of service in 1927. Three Scouts accompanied the Martin Johnson Expedition to Africa in June, 1928. Fifth National Training Conference of Scout Executives at Cornell University in September. The findings of this Conference furnished the basis of the Five-Year Program of the Boy Scouts of America. The Service Library, with 24 volumes, was issued. Vacation Program for boys inaugurated. The 18th Annual Meeting was held on the Pacific Coast. International relationships strengthened by Hubert S. Martin, Director of the International Scout Bureau, in his participation at the Cornell Conference. Four Scouts participated in the Lincoln Highway Covered Wagon Tour from coast to coast, and a Sea Scout accompanied Admiral Byrd to the Antarctic. The Mark M. Jones Report on the organization of the Boy Scouts of America was completed. Membership during year—Scouts and Scouters, 1,183,105. Net membership, December 31st, 819,791.

1929

President Hoover accepted the office of Honorary President and Calvin Coolidge became Honorary Vice-President. Adopted Five-Year Expansion Program. This provided for a 10 million dollar fund. World Jamboree held in August at Arrowe Park, England. Thirteen hundred Scouts and Scouters represented Boy Scouts of America. Jamboree attended by 50,000 Scouts representing 73 different lands. Followed by the 5th International Scout Conference. Vacation Program further developed by Councils providing a program of activities for boys who do not go to camp. Handbook for Patrol Leaders published. The Younger Boy Program put into operation on experimental basis. Membership during year—Scouts and Scouters—1,181,227. Net membership, December 31st, 842,540.

1930

President Hoover launched Forward Movement and Development Program at dinner commemorating Twentieth Anniversary of the Boy Scouts of America, held at Washington, D. C., March 10th, and attended by Cabinet Officers, and others. Club Program formally launched. Scouts participated in Oregon Trail Memorial Centennial. Paul A. Siple, the Scout who accompanied Admiral Byrd to the Antarctic, returned. Chief Scout Executive served as Chairman of the Committee on Youth Outside the Home and School, of President Hoover's White House Conference on Child Health and Protection. Notwithstanding the general business depression, new records were made in program activities and in membership. An increase of about 5% in Scout campers was reported, and an increase of 50% in Sea Scouts. Membership during the year 1,247,493 Scouts and Scouters. Net membership, December 31st, 864,341 Scouts and Scouters.

Total Scouts and Scouters, 1910-1931, 5,242,815.

Distinguished Service to Boyhood

When at its sixteenth Annual meeting (1926) the National Council of the Boy Scouts of America voted to present an award known as the "Silver Buffalo" to men who had rendered distinguished service to boyhood, it was but natural that the first of these awards should be made to Lord Baden-Powell, to whom boys all over the world owe so much. The citation which accompanied the award read as follows:

"Lt. Gen. Sir Robert S. S. Baden-Powell, author, soldier, through whose vision, energy, and wisdom was created and established the British Boy Scouts Association, pioneer of that vast confraternity of Scout organizations, now teaching the boyhood of the world noble conceptions of citizenship, service and the brotherhood of man; whose teachings have sown among youth the seeds of universal peace and accord; whom in recognition of this service to humanity, the nations unite in honoring as 'Chief Scout of the World.'"

The same award was, at the same time, granted to: William D. Boyce, Colin H. Livingstone, James J. Storrow (posthumous award), Daniel Carter Beard, Ernest Thompson Seton, Edgar M. Robinson, Lee F. Hanmer, General George W. Wingate, Joseph Lee, Howard S. Braucher, Mortimer L. Schiff, Milton A. McRae, Frank Presbrey, George D. Pratt, John Sherman Hoyt, Dr. Jeremiah W. Jenks, William D. Murray, G. Barrett Rich, James E. West, George J. Fisher.

Silver Buffalo Awards for 1927 were as follows: Hubert S. Martin, (Great Britain); Brother Barnabas, Stuart W. French, Walter W. Head, Bolton Smith, William Howard Taft, William Adams Welch.

Silver Buffalo Awards for 1928 were as follows: The Unknown Soldier, Col. Charles A. Lindbergh, Arthur N. Cotton, Maj. W. de Bonstetten, Clarence H. Howard, Charles D. Velie, William H. Cowles.

Silver Buffalo Awards for 1929 were as follows: Calvin Coolidge, Richard E. Byrd, Wilbert C. Longfellow, John H. Finley, Howard F. Gillette, Charles D. Hart, H. R. H. The Prince of Wales.

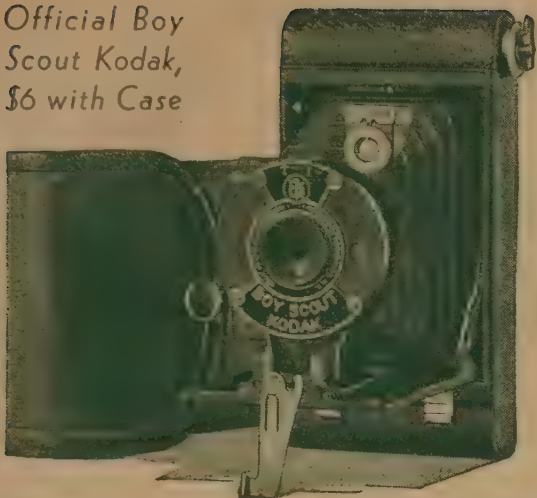
Silver Buffalo awards for 1930 were as follows: Herbert Clark Hoover, James Earl Russell, Franklin D. Roosevelt, James Austin Wilder, Charles L. Sommers, Charles C. Moore, Lewis Warrington Baldwin.

HONORARY SCOUTS

In 1927, the National Council created the title of Honorary Scout to be conferred upon American citizens of outstanding achievement in outdoor activity, exploration and worth-while adventure. The Honorary Scouts are:

Roy Chapman Andrews, New York, N. Y.	Col. Charles A. Lindbergh, Lawrenceville, N. J.
Capt. Bob Bartlett, New York, N. Y.	Donald McMillan, Freeport, Me.
Frederick Burnham, Los Angeles, Cal.	Clifford H. Pope, New York, N. Y.
Admiral Richard E. Byrd, Boston, Mass.	George Palmer Putnam, Rye, N. Y.
George K. Cherrie, New York, N. Y.	Kermit Roosevelt, Oyster Bay, N. Y.
James L. Clark, New York, N. Y.	Karl Rungius, Brooklyn, N. Y.
Merion Cooper, Jacksonville, Fla.	Stewart Edw. White, Burlingame, Cal.
Lincoln Ellsworth, New York, N. Y.	Orville Wright, Dayton, Ohio
Geo. Bird Grinnell, New York, N. Y.	

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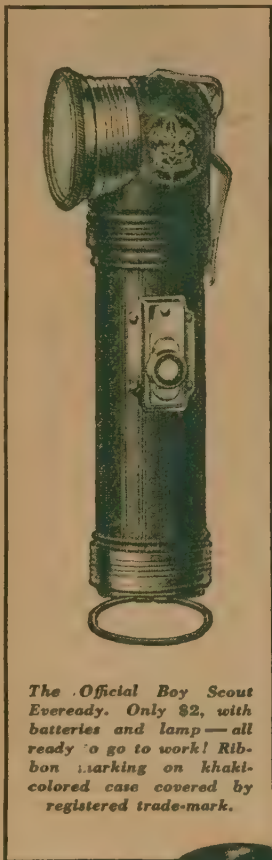
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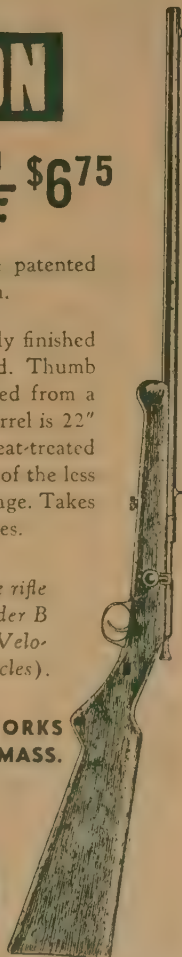
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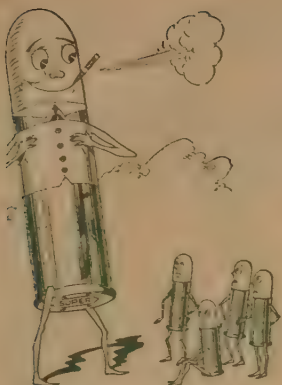
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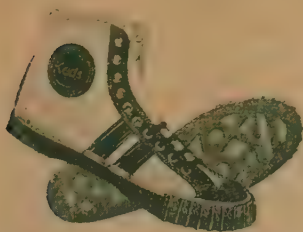
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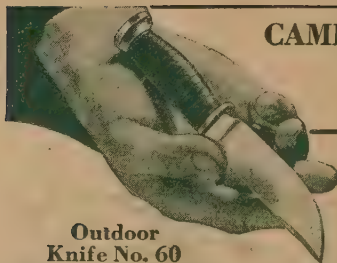


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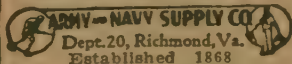
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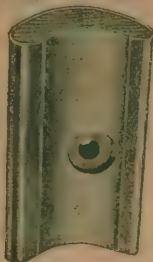
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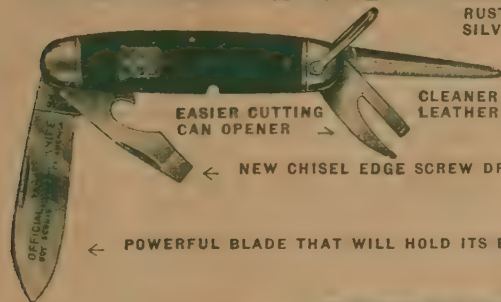
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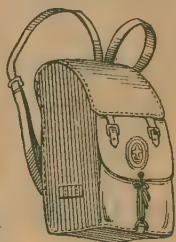


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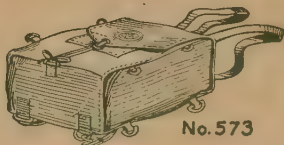
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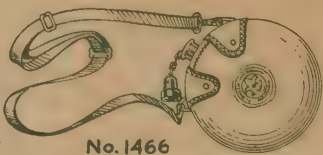
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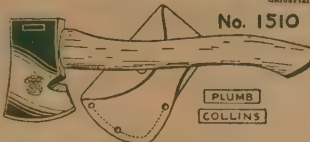
OFFICIAL AXE

Made of one piece solid steel. Complete with leather sheath.

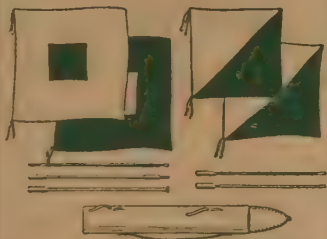
No. 1510

\$1.50

No. 1496



SIGNALING



No. 1498

SIGNAL FLAG SETS

Consists of two pairs of flags: one for Semaphore and the other for Morse, each with separate sticks for signaling. In one case with adjustable strap.

No. 1498

\$1.50

OFFICIAL FIRST-AID KIT

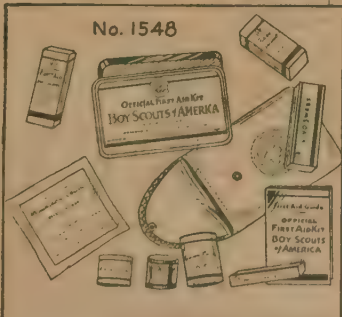
Contains bandage, adhesive plaster, mercurochrome gauze, mercurochrome swabs, vivo rolls, tube soap and ointment for sprains. All packed in tin with khaki carrying case.

No. 1548

75c

FIRST-AID

No. 1548



OR THRU YOUR LOCAL OFFICIAL OUTFITTER

TENTS and SHELTERS

SLEEPING BAG

Designed with down filling for extra warmth. Made of heavy canvas with a waterproof lining. It is light, strong and easy to carry.

No. 1522 \$ 5.00

No. 1520



No. 1523

KNOLTON TENT

Made of heavy canvas with a waterproof lining. It is light, strong and easy to carry. It is designed for use in all weather.

No. 1524 \$ 4.00

POP TENT

Made of heavy canvas with a waterproof lining. It is light, strong and easy to carry. It is designed for use in all weather.

No. 1525 \$ 3.00

No. 1526



No. 1527



WALL TENT

Made of heavy canvas with a waterproof lining. It is light, strong and easy to carry. It is designed for use in all weather.

No. 1528 \$ 10.00

The National Scout Council is the authority on all matters relating to the Boy Scouts of America. It is the only organization in the world that is dedicated to the service of the youth of America.

BLANKETS—ETC.

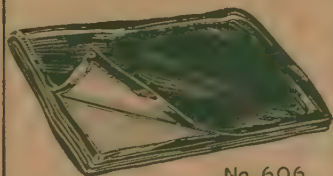
OFFICIAL BLANKET

An economical all-wool camp blanket. Weight 3 lbs. Size 58" x 82". Will stand rough outdoor use.

No. 1172 \$3.50



No. 1172



No. 606

OFFICIAL GROUND BLANKET

Made of waterproof duck with special waterproof coating; olive drab. Size 54" x 66".

No. 606 \$3.00

AIR PILLOW

Size 11" x 16".

No. 1375 \$1.00



No. 1375

GOLD MEDAL FOLDING COT

Size 6½' long x 27" wide x 16¾" high. Made of hard wood and covered with duck.

No. 1323 \$3.00



No. 1323



No. 1532

OFFICIAL FIREMAKING SET

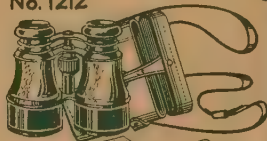
Consists of bow with leather thong; drill and drill socket and notched Yucca fireboard.

No. 1532 \$1.00

OR THRU YOUR LOCAL OFFICIAL OUTFITTER

LIGHTS—ETC.

No. 1212



No. 1278



OFFICIAL FIELD GLASSES

No. 1212

\$7.50

OFFICIAL FLASHLIGHT

May be worn on belt; 200' range.

No. 1278

\$2.00

OFFICIAL SEWING KIT

Pins, Needles, Scissors, Thread, Buttons, in Leatherite Case.

No. 1491

50c



No. 1491

WATCH—ETC.

OFFICIAL ELGIN WATCH
Seven jewel; luminous; nickel chromium plated case with leather strap.

No. 1544

\$16.25

OFFICIAL COMPASS

No. 1076

\$2.50

OFFICIAL BELT BUCKLE
Official Sterling Silver Belt Buckle. Provided separately without Belt.

No. 515B

\$1.50

No. 1544



No. 1076



No. 515 B

BUGLE—ETC.



No. 1277



No. 1006



No. 1070

OFFICIAL BUGLE

No. 1277

\$5.00

OFFICIAL WHISTLE

No. 1006

20c

OFFICIAL LARIAT

20' in length; made of Sampson spot cord.

No. 1070

\$1.25

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Booklets which will give you the very latest information and methods of work on many subjects. They answer questions and show you how to do things. Some of the subjects are Knifecraft, Totem Poles, Archery, Model Airplanes, Leather Work, Nature Study. (See catalog for description and prices.)

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GREAT HIKING SHOE

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Tiretred*



The Firestone Tiretred is great for hiking, camping, climbing, and general outdoor wear . . . the sole has a tread like an automobile tire, that grips the ground and doesn't skid. The toe cap and bumper prevent scuffing out. In short, it's a good, sturdy shoe that will stand a lot of hard wear—a real he-man's shoe! It comes in white with black trim, brown with gray trim or suntan with brown trim.

Ask for the Firestone Tiretred at your shoe store, or write to the manager of our nearest branch and he'll tell you where you can get them.

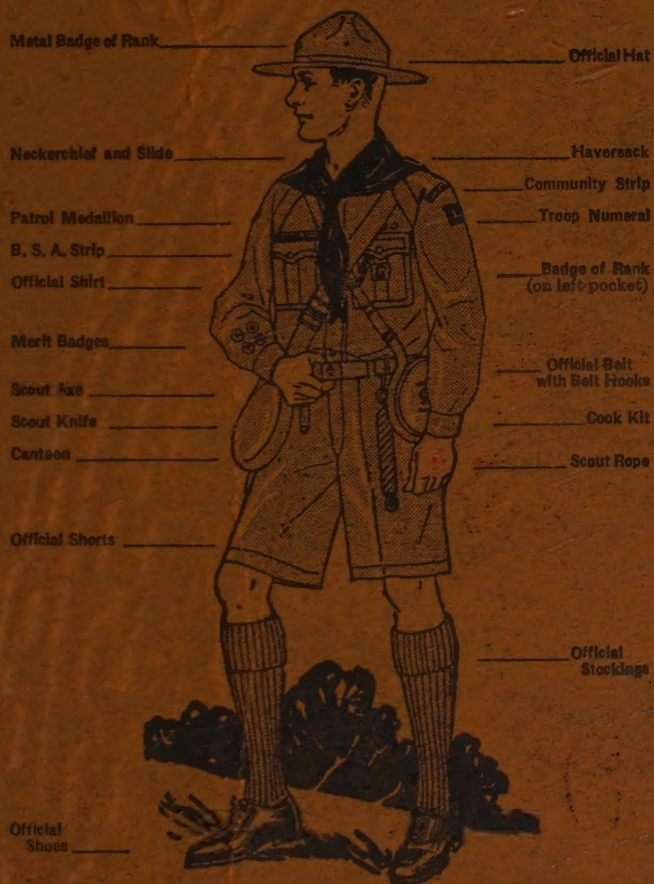
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UNITED STATES

No. 77

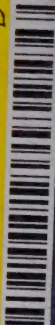
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